

SEQUENCES

SEQ ID No:1 (Aph-1a)

5 MGAAVFFGCTFVAFGPAFALFLITVAGDPLRVILVAGAFFWLVSLLLASVVWFIL
VHVTDRSDARLQYGLLIFGAAAVSLLQEVFRFAYYKLLKADEGLASLSEDGRSPI
SIRQMAVSGLSFGIISGVFSVINILADALGPGVVGHIHGDSYYFLTS AFLTAIIHLH
TFWGVVFFDACERRRYWALGLVVGSHLLTSGLTFLNPWYEASLLPIYAVTSMGL
WAFITAGGSLRSIQRSLLCRRQEDSRVMVYSALRIPPED

10 SEQ ID No: 2 (JUP)

EVNLMEQPIKVTEWQQTYTYDSGIHSGANTCVPSVSSKGIMEEDEACGRQYTLK
KTTTYTQGVPPSQGDLEYQMSTTARAKRVREAMCPGVSGEQLALLATQVEGQA
TNLQRLAEPSQLLKSIAVHLINYQDDAELVTRALPELTKLNDEDPVVVTKAAMIV
NQLSKKEASRRALMGSPQLVAAVVRTMQNTSDLDTARCTTSILHNLSHREGLLA
15 IFKSGGIPALVRMLSSPVESVLFYAITTLHNLLYQEGAKMACAGRRAQKMVPOLL
NKNNPKFLAITTDCLQLLAYGNQESKLIILANGGPQALVQIMRNYSYEKLLWTTSR
VLKVLSVCPSNKPAIVEAGGMQALGKHLTSNSPRLVQNCLWTLRNLSDVATKQE
GLESVLKILVNQLSVDDVNVLTCATGTLNSLTCNNSKNKTIVTQNSGVEALIHAIL
RAGDKDDITEPAVCALRHLSRHPEAEMAQNSVRLNYGIPAIVKLLNQPNQWPLV
20 KATIGLIRNLALCPANHAPLQEAAVIPRLVQLLVKAHQDAQRHVAAGTQQPYTDG
VRMEEIVEGCTGALHILARDPMNRMEIFRLNTIPLFVQLLYSSVENIQRVAAGVLC
ELAQDKEAADAAIDAEGASAPLMEPLLHSRNEGTATYAAAVLFRISEDKNPDYRKRV
SVELTNSLKFHDPAAWEAAQSMIPINEPYGDDMDATYRPMYSSDVPLDPLEMHM
DMDGDYPIDTYSDGLRPPYPTADHMLA

25

SEQ ID No: 3 (Psen1)

MTELPAPLSYFQNAQMSEDNHLNTVRSQNDNRERQEHNDRRLGHPEPLSNGRP
QGNSRQVVEQDDEEDEELTLKYGAKHIVIMLFVPVTLCMVVVVATIKSVSFYTRKD
GQLIYTPFTEDTETVGQRALHSILNAAIMISVIVVMTILLVVLYKYRCYKVIHAWLII
30 SSLLLLFFFFSFIYLGEVFKTYNVAVDYITVALLIWNFGVVGMISIHWGPLRLQQAY
LIMISALMALVFIKYLPEWTAWLILAVISVYDLVAVLCPKGPLRMLVETAQERNET
LFPALIYSSTMVWL VNMAEGDPEAQRRVSKNSKYNAESTERESQDTVAENDDDGG

FSEEW EAQRD SHLGPHRSTPESRAAVQELSSSILAGEDPEERGVKLGLGDFIFYSVL
VGKASATASGDWNTTIACFVAILIGLCLL LAIFKKALPALPISITFGLVFYFATD
YLVQPFMDQLAFHQFYI

5 SEQ ID No: 4 (ACAT1)

MVGEEKMSLRNRLSKSRENPEEDEDQRNPAKESLETPSNGRIDIKQLIAKKIKLTAE
AEARLKPFMKEVGSHFDDFVTNLIEKSASLDNGGCALTFSVLEGEKNNHRAKD
LRAPPEQGKIFIARRSLLDELLEV DHDHRTIYHMFIALLL FILSTLVVDYIDEGRLVLE
FSLLSYAFGKFPTVVWTWWIMFLSTFSVPYFLFQHWATGYSKSSHPLIRSLFHGFL
10 FMIFQIGVLGFGPTYVVLA YTLPPASRFIIIFEQIRFVMKAHSFVRENVPRLNSAKE
KSSTVPIPTVNQYLYFLFAPTLIYRDSYPRNPTVRWGYVAMKFAQVFGCFFYVYYI
FERLCAPLFRNIKQEPFSARVLVLCVFNSILPGVLILFLTFFAFLHCWLNAFAEMLRF
GDRMFYKDWWNSTSYSNYYRTWNVVVHDWLYYYAYKDFLWFFSKRFKSAAM
LAVFAVSAVVHEYALAVCLSFFYPVLFVLFMFFGMAFNIVNDSRKPKIWNVLM
15 WTSFLGNGVLLCFYSQEwyARQHCP LKNPTFLDYVRPRSWTCRYVF

SEQ ID No: 5 (BRI)

MVKVTFNSALAQKEAKKDEPKSGEEALIIPPDAVAVDCKDPDDVVPVGQRRAWC
WCMCFG LAFMLAGVILGGAYLYKYFALQPDDVYYCGIKYIKDDVILNEPSADAPA
20 ALYQTIEENIKIFE EEEVEFISVPVPEFADSDPANIVHDFNKKLTAYLDLNLDKCYVI
PLNTSIVMPPRNLL ELLNIKAGTYLPQSYLIHEHMVITDRIENIDHLGFTYRLCHDK
ETYKLQRRETIKGIQKREASNCFAIRHFENKFAVETLICS

SEQ ID No: 6 (calsyntenin 1)

25 MLRRPAPALAPAARLLL AGLLCGGGVWAARVNKHKPWLEPTYHGIVTENDNTVL
LDPPLIALDKDAPLRFAGEICGFKIHGQNVPFDAVVVDKSTGEGVIRSKEKLDCEL
QKDYSFTIQAYDCGKGPDGTNVKKSHKATVHIQVNDVNEYAPVFKEKS YKATVIE
GKQYDSILRVEAVDADCSPQFSQICSYEITPDVPFTVDKGYIKNTEKLN YGKEHQ
YKLTVTA YDCGKKRATEDVLVKISIKPTCTPGWQGWNNRIEYEPGTGALAVFPNI
30 HLETCD EPVAVSQATVELETSHIGKGCDRDTYSEKSLHRLCGAAAGTAELLPS PSG
SLNWTMGLPTDNGHDSDQVF EFGNTQAVRIPDGVS VSPKEPFTISVWMRHGPFG
RKKETILCSSDKTDMNRHHYSLYVHGCR LIFLFRQDPSEEKKYRPAEFHWKLNQV

CDEEWHHYVLNVEFPSVTLYADGTSHEPFSVTEDYPLHPSKIETQLVVGACWQEF
SGVENDNETEPVTVACAGGDLHMTQFFRGNLAGLTLRSGKLADKKVIDCLYTCK
EGLDLQVLEDSGRGVQIQAHRSQLVLTLEGEDILGELDKAMQHISYLNRSQFPTPGI
RRLKITSTIKCFNEATCISVPPVDGYVMVLQPEEPKISLSGVHHFARAASEFESSEGV
5 FLFPELRIISTITREVEPEGDGAEDPTVQESLVSEEIVHDLDTCEVTVEGEELNHEQE
SLEVDMARLQQKGIEVSSSELGMTFTGVDTMASYEEVLHLLRYRNWHARSLLDR
KFKLICSELNGRYISNEFKVEVNVIHTANPMEHANHMAAQPQFVHPEHRSFVDLS
GHNLANPHPFAVVHSTATVVIVVCVSSLVFMIIILGVFRIRAAHRRTMRDQDTGKE
NEMDWDDSALTITVNPME TYEDQHSSEEEEEEESEDGEEDDITSAESESSEE
10 EEGEQGDPQNATRQQQLEWDDSTLSY

SEQ ID No: 7 (DLK1)

MTATEALLRVLLLLLAFGHSTYGAECFPACNPQNGFCEDDNVCRCQPGWQGPLC
DQCVTSPGCLHGLCEPGQCICTDGWDGELCDRDVRACSSAPCANNGTCVSLDG
15 GLYECSCAPGYSGKDCQKKDGPCVINGSPCQHGGTCVDDEGRASHASCLCPPGS
GNFCEIVANSCTPNPCENDGVCTDIGGDFRCRCPAGFIDKTCSRPVTNCASSPCQN
GGTCLQHTQGQAICFTILGVLTSLVVLGTVGIVFLNKCETWVSNLRYNHMLRKKK
NLLLQYNSGEDLAVNIIPEKIDMTTFSK EAGDEEI

20 SEQ ID No: 8 (DSCD75)

MLGLLVALLALGLAVFALLDVWYLVRLPCA VLRARLLQPRVRDLLAEQRFPGRV
LPSDLDLLLHMNNARYLREADFARVAHLTRCGVLGALRELRAHTVLAASCARHR
RSLRLLEPFEVRTRLLGWDDRAFYLEARFVSLRGFVCALLRFRQHLLGTSPERVV
QHLCQRRVEPPELPADLQHWISYNEASSQLRMEGLSDVTKDQ

25

SEQ ID No:9 (Nicastrin)

MATAGGGSGADPGSRGLLRLLSFCVLLAGLCRGN SVERKIYIPLNKTAPCVRLLNA
THQIGCQSSISGDTGVIHVVEKEEDLQWVLTDPNPPYMLLESKHFTRDLMEKL
KGRTSRIAGLA VSLTKPSPASGFSPSVQCPNDGFVYNSYGP EFAHCREIQWNSL
30 GNGLAYEDFSFFPIFLLEDENETKVIKQCYQDHNLSQNGSAPTFPLCAMQLFSHMHA
VISTATCMRRSSIQSTSINPEIVCDPLSDYNVWSMLKPINTTGTLPDDR VVVAAT
RLDSRSFFWNVAPGAESA VASFVTQLAAA EALQKAPDVTTLPRNVMFVFFQGETF

DYIGSSRMVYDMEKGKFPVQLENVDSFVELGQVALRTSLELWMHTDPVSQKNES
VRNQVEDLLATLEKSGAGVPAVILRRPNQSQPLPPSSLQRFLRARNISGVVLADHS
GAFHNKYYQSIYDTAENINVSYPEWLSPEEDLNFTDTAKALADVATVLGRALYE
LAGGTNFSDTVQADPQTVTRLLYGFLIKANNSWFQSILRQDLRSYLGDGPLQHYIA
5 VSSPTNTTYVVQYALANLTGTVVNLTREQCQDPSKVPSENKDLYEYSWVQGPLHS
NETDRLPRCVRSTARLARALSPAFLSQWSSTEYSTWTESRWKDIRARIFLIASKEL
ELITLTVGFGILIFSLIVTYCINAKADVLFIAPREPGAVSY

SEQ ID No:10 (Pen-2)

10 MNLERVSNEEKNLCKYLYGGFAFLPFLWLVNIFWFFREAFLVPAYTEQSQIKG
YVWRSAVGFLFWVIVLTSWITIFQIYRPRWGALGDYLSFTIPLGTP

SEQ ID No: 11 (FACL3)

15 MNNHVSSKPSTMKLKHTINPILLYFIHFLISLYTILTYIPFYFFSESRQEKSNIKAKP
VNSKPDSAYRSVNSLDGLASVLYPGCDTLKVFYAKNKFKNKRLLGTREVLN
DEVQPNGKIFKKVILGQYNWLSYEDVFVRAFNFGNGLQMLGQKPKTNIAIFCETR
AEWMIAAQACFMNFQLVTLYATLGGPAIVHALNETEVNIITSKELLQTKLKDIV
SLVPRLRHITVDGKPPTWSDFPKGIIVHTMAAVEALGAKASMENQPHSKPLPSDIA
VIMYTSGSTGLPKGVMISHSNIIAGITGMAERIPELGEEDVYIGYLPLAHVLELSAEL
20 VCLSHGCRIGYSSPQLADQSSKIKKGSKGDTSMKPTLMAAVPEIMDRIYKNVM
NKVSEMSSFQRNLFILA NYKMEQISKGRNTPLCDSFVFRKVRSLGGNIRLLCG
GAPLSATTQRFMNICFCCPVGQGYGLTESAGAGTISEVWDYNTGRVGAPLVCEI
KLKNWEEGGYFNTDKPHPRGEILIGGQSVTMYYKNEAKTKADFSEDENGQRWL
CTGDIGEFEPDGCLKIIDRKKDVLVKLQAGEYVSLGKVEAALKNLPLVDNICA
25 YHSYVIGFVVPNQKELTELARKKGLKGTWEELNSCEMENEVLKVLSEAAISASL
EKFEIPVKIRLSPEPWTPEGLVTDAFKLKRKELKTHYQADIERMYGRK

SEQ ID No: 12 (FLJ10579)

30 MSRLGALGGARAGLGLLGTAAGLGLCLLYSQRWKRTQRHGRSQSLPNSLDYT
QTSDPGRHVMLRAVPGGAGDASVLPSPREGQEKVLDRLDFVLTSLVALRREVE
ELRSSLRGLAGEIVGEVRCHMEENQRVARRRRFPFVRERSDSTGSSSVYFTASSGA
TFTDAESEGGYTTANAESDNERDSDKESEDGEDEVSCETVKMGRKDSLDLEEEAA

SGASSALEAGGSSGLEVLPLLQQADELHRGDEQGKREGFQLLNNKLVYGSRQD
FLWRLARAYSDMCELTEEVSEKKSYALDGKEEAALEKGDESADCHLWYAVLC
GQLAEHESIQRRIQSGFSFKEHVDKAIALQOPENPMAHFLLGRWCYQVSHLSWLEK
KTATALLESPLSATVEDALQSFLKAEEELQPGFSKAGRVYISKCYRELGKNSEARW
5 WMKLALELPDVTKEDLAIQKDLEELEVILRD

SEQ ID No: 13 (ITM2C)

MVKISFQPAVAGIKGDKADKASASAPAPASATEILLTPAREEQPPQHRSKRGGSVG
GVCYLSMGMVVLLMGLVFASVYIYRYFFLAQLARDNFFRCGVLYEDSLSSQVRT
10 QMELEEDVKIYLDENYERINVVPVPQFGGGDPADIHDFQRGLTAYHDISLDKCYVIE
LNTTIVLPPRNFWELLMNVKRGTYLPQTYIIQEEMVVTEHVSDEALGSFIYHLCN
GKDTYRLRRRATRRRINKRGAKNCNAIRHFENTFVETLICGVV

SEQ ID No:14 (Presenilin)

15 MTELPAPLSYFQNAQMSEDNHLSNTNDNRERQEHNDRRLGHPEPLSNRGPQGNS
RQVVEQDEEEDEELTLKYGAKHVMLFVPVTLCKMVVVATIKSVSFYTRKDQQLI
YTPFTEDTETVGQRALHSILNAAIMISVIVVMTILLVVLKYRCYKVIHAWLISSLL
LLFFFSTYLGEVFKTYNVAVDYITVALLIWNLGVVGMSIHWKGPLRLQQAYLIMI
SALMALVFIKYLPEWTAWLILAISVYDLVAVLCPKGPLRMLVETAQERNETLFP
20 ALIYSSTMVWLVNMAEGDPEAQRRVSKNSKYNAESTERESQDTVAENDDGGFSE
EWEAQRDSHLGPHRSTPESRAAVQELSSSILAGEDPEERGVKLGDFIFYSVLVG
KASATASGDWNTTIACFVAILIGLCLLLLAIFFKKALPALPISITFGLVFYFATDYL
VQPFMDQLAFHQFYI

25 SEQ ID No:15 (Sortilin/Sort1)

MERPWGAADGLSRWPHGLLLLLQLLPPSTLSQDRLDAPPPAAPLPRWSGPIGV
SWGLRAAAAGGAFPRGGRWRRSAPGEDEECGRVRDFVAKLANNTHQHVFDDL
GSVSLSWVG DSTGVILVLTTFHVPLVIMTFGQS KLYRS EDYGKNFKDITDLINNTFI
RTEFGMAIGPENSGKVVLTAEVSGGSRGGRIFRSSDFAKNFVQTDLFHFPLTQMM
30 YSPQNSDYLLALSTENGLWVSKNFGGKWEIHKAVCLAKWGSNDNTIFFITYANGS
CKADLG ALELWRTSDLGKSFKTIGVKIYSFGLGGRFLFASVMADKDTTRRIHVSTD
QGDTWSMAQLPSVGQEKFYISLAANDDMVFMHVD EPGDTGF GTIFTSDDRGIVYS

KSLDRHLYTTGGETDFTNVTSLRGVYITSVLSEDNSIQTMITFDQGGRWTHLRKP
ENSECDATAKNKNECSLHIHASYSISQKLNVPMAPLSEPNAGIVIAHGSVGAISV
MVPDVYISDDGGYSWTKMLEGPHYYTILDGGIVAIIEHSSRPINVIFKSTDEGQCW
QTYTFTRDPIYFTGLASEPGARSMNISIWGFTESFLTSQWVSYTIDFKDILERNCEEK
5 DYTILWAHSTDPEDYEDGCILGYKEQFLRLRKSSMCQNGRDYVVTKQPSICLCSLE
DFLCDFGYYRPENDSKCVEQPELKGHDFCLYGREENLTNGYRKIPGDKCQGG
VNPVREVKDLKKKCTSNFLSPEKQNSKSNSVPIILAIVGLMLVTVVAGVLIVKKYV
CGGRFLVHRYSVLQQHAEANGVDGVDALDTASHTNKGYHDDSDEDLLE

10 SEQ ID No: 16 (ITPR1)

MSDKMSSFLHIGDICSLYAEGSTNGFISTLGLVDDRCVVQPETGDLNNPPKKFRDC
LFKLCPMNRYSAQKQFWKAAKPGANSTDAVLLNKLHHAADLEKKQNETENRK
LLGTVIQYGNVIQLLHLKSNKYLTVNKRKPALLEKNAMRVTLDEAGNEGFWFYIQ
PFYKLRSIGDSVVGDKVVLNPVNAGQPLHASSHQLVDNPGCNEVNSVNCNTSWK
15 IVLFMKWSDNKDDILKGGDVVRLFHAEQEKFLLTCDEHRKKQHVFLRTTGRQSATS
ATSSKALWEVEVVQHDPCRGAGYWNSLFRFKHLATGHYLAEVDPDFEECLE
FQPSVDPDQDASRSRLRNAQEKMVYSLSVPEGNDIISIFELDPITLRGGDSLVPR
NSYVRLRHLCTNTWVHSTNIPIDKEEEKPVMLKIGTSPVKEDKEAFAIVPVSPAEV
RDLDFFANDASKVLGSIAGKLEKGTITQNERRSVKLLEDLVYFVTGGTNSGQDVL
20 EVVFSKPNRERQKLMREQNILKQIFKLLQAPFTDCGDGPMLRLEELGDQRHAPFR
HICRLCYRVLHSQQDYRKNQEYIAKQFGFMQKQIGYDVLAEDTITALLHNNRKL
LEKHITAAEIDTFVSLVRKNREPRFLDYLSDLCVSMNKSIPVTQELICKAVLNPTNA
DILIETKVLVLSRFEFEGVSSTGENALEAGEDEEEVWLFWRDSNKEIRSKVRELAQD
AKEGQKEDRDVLSYYRYQLNLFARMCLDRQYLAINEISGQLDVLDLILRCMSDENL
25 PYDLRASFCLMLHMHVDRDPQEVTVPKYARLWSEIPSEIAIDDYDSSGASKDEI
KERFAQTMEFVEEYL RDVVCQRFPFSDKEKNKLTFEVNVNLARNLIYFGFYNFSDLL
RLTKILLAILDCVHVTTIPISKMAKGEENKGNN DVEKLKSSNVMRSIHGVGELMT
QVVLRGGGFLPMTPMAAPEGNVKQAEPEKEDIMVMDTKLKIIILQFILNVRLDY
RISCLLCIFKREFDESNSQTSETSSGNSSQEGPSNPGALDFEHIEEQAEIGIFGGRKV
30 YFHEENTPLDLDHGGRTFLRVLLHLMHDYPPLVSGALQLLFRHFSQRQEVLQA
FKQVQLLVTSDVDNYKQIKQDLDQLRSIVEKSELWVYKGQGPDETMDGASGEN
EHKKTEEGNNPKQKHESTSSYNYRVVKEILIRLSKLCVQESASVRKSRKQQQRLLR

NMGAHAVVLELLQIPYEKAEDTKMQEIMRLAHEFLQNCAGNQQNQALLHKHIN
LFLNPGILEAVTMQHIFMNNFQLCSEINERVVQHFVHCIETHGRNVQYIKFLQTIVK
AEGKFIKKCQDMVMAELVNSGEDVLVFYNDRASFQTLIQMMRSERDRMDENSPL
MYHIHLVELLAVCTEGKNVYTEIKCNSLLPLDDIVRVVTHEDCIPEVKIAYINFLNH
5 CYVDTEVEMKEIYTSNHWKLFENFLVDICRACNNTSDRKHADSILEKYVTEIVM
SIVTTFFSSPFSDQSTTLQTRQPVFVQLLQGVFRVYHCNWLMPSQKASVESCIRVLS
DVAKSRAIAIPVDLDSQVNLLFLKSHSIVQKTAMNWRLSARNAARRDSVLAASRD
YRNIIERLQDIVSALEDRLRPLVQAELSVLVDVLHRPELLFPENTDARRKCESGGFI
CKLIKHTKQLLEENEKLCIKVLQTLREMMTKDRGYGEKLISIDEELDNAELPPAPD
10 SENATEELEPSPLRQLEDHKRGEALRQVLVNRYYGNVRPSGRRESLTSFGNGPLS
AGGPGKPGGGGGGSGSSSMSRGEMSLAEVQCHLDKEGASNLVIDLIMNASSDRV
HESILLAIALLEGGNTTIQHSFFCRLTEDKKSEKKVFYDRMKVAQQEIKATVTVN
TSDLGNKKKDDDEVDRDAPSRRKAKEPTTQITEEVRDQLLEASAATRAFTTFRRE
ADPDDHYQPGEQTQATADKAKDDLEMSAVITIMQPILRFLQLLCENHNRDLQNFL
15 RCQNNKTNYNLVCETLQFLDCICGTTGGLGLLYINEKNVALINQTLESLTEYC
QGPCHENQNCIATHESNGIDIITALILNDINPLGKKRMDLVLELKAKNASKLLLAIM
ESRHDSENAERILYNMRPKELVEVIKKAYMQGEVEFEDGENGEDGAASPRNVGH
NIYILAHQLARHNKELQSMLKPGQVDGDEALEFYAKHTAQIEIVRLDRTMEQIVF
PVPSICEFLTKESKLRIYYTTERDEQGSKINDFFLRSEDLFNEMNWQKKLRAQPVL
20 YWCARNMSFWSSISFNLAVMNLLVAFFYPFKGVRGGTLEPHWSGLLWTAMILIS
LAIVIALPKPHGIRALIASTILRLIFSVGLQPTLFLLGAFNVCNKIIFLMSFVGNCGTFT
RGYRAMVLDVEFLYHLLYLVICAMGLFVHEFFYSLLLFDLVYREETLLNVIKSVTR
NGRSIILTAVLALILVYLFSIVGYLFFKDDFILEVDRLPNETAVPETGESLASEFLFSD
VCRVESGENCSSPAPREELVPAEETEQDKEHTCETLLMCIVTVLSHGLRSGGGVGD
25 VLRKPSKEEPFALARVIYDLLFFFVIIIVLNLIFGVIIDTFADLRSEKQKKEEILKTT
CFICGLERDKFDNKTVTFEEHIKEEHNMWHYLCFIVLVKVKDSTEYTGPESYVAE
MIKERNLDWFPRMRAMSLVSSDSEGEQNELRNLQEKLESTMKLVTNLSQLSELK
DQMTEQRKQKQRIGLLGHPPHMNVNPQQPA

30 SEQ ID No: 17 (KiDins220)

LQLSVKMSVLISQSVINYVEEENIPALKALLEKCKDVEDERNECGQTPLMIAAEQGN
LEIVKELIKNGANCNLEDLDNWTALISASKEGHVHIVEELLKCGVNLEHRDMGGW

TALMWACYKGRTDVVELLSHGANGPSVTGLYSVYPIWAAGRGHADIVHLLLQN
GAKVNCSDKYGTPLVWAARKGHLECVKHLLAMGADVDQEGANSMTALIVAV
KGGYTQSVKEILKRNPVNLTQDGNTALMIASKEGHTEIVQDLDAGTYVNIPD
RSGDTVLIGAVRGGHVEIVRALLQKYADIDIRGQDNKTALYWAVERGNATMVRD
5 ILQCNPDTEICTKDGTEPLIKATKMRNIEVVELLDKGAKVSAVDKKGDTPLHIAIR
GRSRKLAELLRNPKDGRLLYRPNKAGETPYNIDCSHQKSILTQIFGARHLSPTETD
GDMLGYDLYSSALADILSEPTMQPPICVGLYAQWGSGKSFLKKLEDEMKTFAHQ
QIEPLFQFSWLVFLTLLCGGLLFAFTVHPNLGIAVSLFLALLYIFFIVIYFGGR
REGESWNWAWVLSTRALARHIGYLELLLKLMFVNPPPEQTTKALPVRFLFTDYN
10 RLSSVGGETSLAEMIATLSDACEREFGFLATRLFRVFKTEDTQGKKKWKKTCCCLPS
FVIIFLFIIGCIISGITLLAIFRVDPKHLTVNAVLISIASVVGAFVLNCRTWWQVLDSDL
LNSQRKRLHNAASKLHKLKSEGFMKVLKCEVELMARMMAKTIDSFTQNQTRLVVII
DGLDACEQDKVLQMLDTVRLFSKGPFIAIFASDPHIKAINQNLNSVLRDSNING
HDYMRNIVHPVFLNSRGLSNARKFLVTSATNGDVPCSDTTGIQEDADRRVSQNS
15 LGEMTKLGSKTALNRRDTYRRRQMQRITRQMSFDLTKLLVTEDWFSDISPQTMR
RLLNIVSVTGRLLRANQISFNWDRLASWINLTEQWPYRTSWLILYLEETEGIPDQM
TLKTIYERISKNIPTTKDVEPLLEIDGDIRNFEVFLSSRTPVLVARDVKVFLPCTVNL
DPKLREIIADVRAAREQISIGGLAYPPLPLHEGPPRAPSGYSQPPSVCSSTSFGPFA
GGVVSPQPHSSYYSGMTGPQHPFYNRPFFAPYLYTPRYYPGGSQHLISRPSVKTSL
20 PRDQNNGLEVIKEDAAEGLSSPTDSSRGSGPAPGPVLLNSLNVDAVCEKLKQIEG
LDQSMILPQYCTTIKKANINGRVLAQCNIDELKKEMNMNGDWHLFRSTVLEMNR
AESHVVPEDPRFLSESSSGPAPHGEPARASHNELPHTELSSQTPYTLNFSFEELNTL
GLDEGAPRHSNLSWQSQTRRTPSLSSLNSQDSSIEISKLTDKVQAEYRDAYREYIA
QMSQLEGGPGSTTISGRSSPHSTYYMGQSSSGSIHSNLEQEKGKDSEPKPDDGRK
25 SFLMKRGDVIDYSSSGVSTNDASPLDPITEEDEKSDQSGSKLLPGKKSSERSSLFQT
DLKLKGSGLRYQKLPSDEDESGETEESDNTPLLKDDKDRKAEGKVERVPKSPEHSA
EPIRTFIKEYLSDALLDKDSSDSGVRSSSESPNHSIHNEVADDSQLEKANLIEL
EDDSHSGKRGIPHSGLQDPIIARMSICSEDKSPSECSLIASSPEENWPACQKAYN
LN RTPSTVTLNNNSAPANRANQNFDEMEGIRETSQVILRPSSSPNPTTIQNENLKSM
30 THKRSQRSSYTRLSKDPPELHAAASSESTGFGEERESIL

MDLEGDRNGGAKKKNFFKLNNKSEKDKEKKPTVSFVFSMFRYSNWLDKLYMVV
GTLAAIIHGAGLPLMMLVFGEMTDIFANAGNLEDLMSNITNRSIDINTGFFMNLEE
DMTRYAYYSGIGAGVLVAAYIQVSFWCLAAGRQIHKIRKQFFHAIMRQEIGWFD
VHDVGELNTRLTDDVSKINEGIGDKIGMFFQSMATFFTGFIVGFTRGWKLTLVILAI
5 SPVLGLSAAVWAKILSSFTDKELLAYAKAGAVAEEVLAIRTVIAFGGQKKELER
YNKNLEEAKRIGIKKAITANISIGAAFLIYASYALAFWYGTTLVLSGEYSIGQVLT
VFFSVLIGAFSVGQASPSIEAFANARGAAYEIFKIIDNKPSIDSYSKSGHKPDNIKGN
LEFRNVHFSYPSRKEVKILKGLNLKVQSGQTVALVGNSGCGKSTTVQLMQRLYDP
TEGMVSVDGQDIRTINVRFLREIIGVVSQEPVLFATTIAENIRYGRENVTMDEIEKA
10 VKEANAYDFIMKLPHKFDTLVGERAQLSGGQKQRIAARIARALVRNPKILLDEATS
ALDTESEA VVQVALDKARKGRTTIVIAHRLSTVRNADVIAGFDDGVIVEKGHNDE
LMKEKGFIYFKLVTMQTAGNEVELENAADESKSEIDALEMSSNDSRSSLIRKRSTR
SVRGSQAQDRKLSTKEALDESIPPVSFRIMKLNTEWPYFVVGVFCAIJINGGLQP
AFAIIFSIIIGVFTTRIDDPETKRQNSNLFSLLFLALGIISFITFFLQGFTFGKAGEILT
15 KRLRSTRRLRSTRRLRSTRRLRSTRRLRSTRRLRSTRRLRSTRRLRSTRRLRSTR
LRYMVFRSMLRQDVWFDDPKNTTGALTTRLANDAAQVKGAIGSRLAVITQNI
NLGTGIIISFIYGWQLTLLLAIIVPIIAIAGVVEMKMLSGQALKDKKELEGAGKIA
TEAIENFRTVVSLTQEQQKFEHMYAQSLQVPRNSLRKAHIFGITFSFTQAMMYFSYAG
CFRFGAYLVAHKLMSFEDVLLVFSAVVFGAMA VGQVSSFAPDYAKAKISAAHIIM
IIEKTPLIDSYSTEGLMPNTLEGNTFGEVVFNYPTRPDIPVLQGLSLEVKKGQTLA
20 LVGSSGCGKSTVVQLLERFYDPLAGKVLLDGKEIKRLNVQWLRAHLGIVSQEPILF
DCSIAENIAYGDNSRVSQEEIVRAAKEANIHAFIESLPNKYSTKVGDKGTQLSGG
QKQRIAARIARALVRQPHILLDEATSALDTESEKVVQEALDKAREGRTCIVIAHRLST
IQNADLIVVFQNGRVKEHGTHHQQLAQKGIYFSMVSQAGTKRQ

25 SEQ ID No: 19 (Neurotrypsin)

MTLARFVLALMLGALPEVVGFDSVLNDLHSHRHSPPAGPHYPYLYPTQQRPPR
TRPPPPLPRFPRPPRALPAQRPHALQAGHTPRPHWGCPAGEPWVSVTDFGAPCLR
WAEVPPFLERSPPASWAQLRGQRHNFCRSPDGAGRWCFYGDARGKVDWGYCD
CRHGSVRLRGKNEFEGTVEVYASGVWGTVCSSHWDSDASVICHQLQLGGKGI
30 AKQTPFSGLGLIPIYWSNVRCRGDEENILLCEKDIWQGGVCPQKMAAAVTCFSH
GPTFPIRLAGGSSVHEGRVELYHAGQWGTVCDDQWDDADAEVICRQLGLSGIAK
AWHQAYFGEGSVPMLDEVRCTGNELSIEQCPKSSWGEHNCGHKEDAGVSCTPL

TDGVIRLAGGKGSHEGRLEVYYRGQWGTVCDDGWTTELNTYVVCRQLGFYKQ
ASANHFEESTGPIWLDDVSCSGKETRFLQCSRRQWGRHDCSHREDVSIACYPGGE
GHRLSLGFPVRLMDGENKKEGRVEVFINGQWGTICDDGWTDKDAAVICRQLGYK
GPARARTMAYFGEKGPIHVDNVKCTGNERSLADCIKQDIGHNCRHSEDAGVIC
5 DYFGKKASGNSNKESLSSVCGLLLHRRQKRIIGGKNSLRGGWPWQVSLRKSSH
GDGRLLCGATLSSCWVLTAAHCFKRYGNSTRSYAVRVDYHTLVPEEFEEEIGV
QQIVIHREYRPDRSDYDIALVRLQGPEEQCARFSSHVLPACLPLWRERPQKTASNC
YITGWGDTGRAYSRTLQQAAIPLPKRFCEERYKGRFTGRMLCAGNLIEHKRVDS
CQGDGGGPLMCERPGESVVVYGVTSWGYGCGVKDSPGVYTKVSASFVPWIKSVT

10 KL

SEQ ID No: 20 (PLD3)

LAVVGFGALMTQLFLWEYGDLHLFGPNQRPAAPCYDPCEAVLVEPIEGLDFPNAS
TGNPSTSQAWLGLLAGAHSSLDIASFYWTLTNNNDHTQEPQAQQGEEVLRQLQTL
15 APKGVNVRIA VSKPSGPQPQADLQALLQSGAQVRMVDMQKLTHGVLHTKFVV
DQTHFYLGSANMDWRSLTQVKELGVVMYNCSCLARDLTKIFEAYWFLGQAGSSI
PSTWPRFYDTRYNQETPMEICLNGTPALAYLASAPPPLCPSGRTPDLKALLNVVDN
ARSFIYVAVMNYLPTLEFSHPHRFWPAIDDGLRRATYERGVKVRLLISCWGHSEPS
MRAFLLSLAALRDNHSDIQVKLFVVPADEAQARIPYARVNHNKYMVTERATYI
20 GTSNWSGNYFTETAGTSLVTQNGRGLRSQLEAIFLRDWDSPYSHDLTSADSV
GNACRLL

SEQ ID No: 21 (RetSDR2)

MKFLLDILLPLLLIVCSLESFVKLFIPKRRKSVTGEIVLITGAGHGIGRLTAYEFAKL
25 KSKLVLWDINKHGLEETAACCKGLGAKVHTFVVDCSNREDIYSSAKVKAEIGD
VSILVNNAGVYYTSDLFATQDPQIEKTFEVNVLAHFWTTKAFLPAMTKNNHGHIV
TVASAAGHVSVPFLAYCSSKFAAVGFHKLTDELAALQITGVKTTCLCPNFVNT
GFIKNPSTSLGPTLEPEEVNRLMHGILTEQKMFIPSSIAFLTTLERILPERFLAVLK
RKISVKFDAVIGYKMKAQ

30

SEQ ID No:22 (APLP2)

MAATGTAAAAATGRLLLLLVGLTAPALALAGYIEALAANAGTGFVAEIQIAM
FCGKLNMHVNIQTGKWEQDPGKSCFETKEEVLQYCQEMYPELQITNVMEANQ
RVSIDNWCRDQQCKSRVTPFKCLVGEFVSDVLLVPEKCQFFHKERMEVCENH
QHWHTVVKEACLTQGMLYSYGMLLPCGVDQFHGTEYVCCPQTKIIGSVSKEEEE
5 EDEEEEEEEDEEEDYDVYKSEFPTEADLEDTEAAVDEDDEDEEEGEEVVEDRDY
YYDTFKGDDYNEENPTEPGSDGTMSDKEITHDVKA VCSQEAMTGPCRAVMRW
YFDLSKGKCVRFIYGGCGGNRNNFESEDYCMAVCKAMIPPTPLPTNDVDVYFETS
ADDNEHARFQKAKEQLEIRHRNRMDRVKEWEEAELQAKNLPKAERQTLIQHFQ
AMVKALEKEAASEKQQLVETHLARVEAMLNDRRRMALENYLAALQSDPPRPHRI
10 LQALRRYVRAENKDRLHTIRHYQHVLAVDPEKAAQMKSQVMTHLHVIEERRNQS
LSLLYKVPYVAQEIQEEIDELLQEQRADMDQFTASISETPVDVRVSSEESEEIPPFHP
FHPFPALPENEDTQPELYHPMKKGSGVGEQDGGLIGAEEKVINSKNVDENMVID
ETLDVKE MIFNAERVGGLEERESVGPLREDFSLSSSALIGLLVIAV AIA TVIVISLV
MLRK RQYGTISHGIVEVDPM LTPEERH LNKMQNHGYENPTYKYLEQM QI

15

SEQ ID No:23 (APP)

MLPGLALLLAAWTARALEVPTDGNAGLLAEPQIAMFCGRLNMHMNVQNGKWD
SDPSGTKTCIDTKEGILQYCQEYVPELQITNVVEANQPVTIQNWCKRGRKQCKTHP
HFVIPYRCLVGEFVSDALLVPDKCKFLHQERMDVCETHLHWHTVAKETCSEKSTN
20 LHDYGMLLPCGIDKFRGVEFVCCPLAEESDNVDSADAEEEDSDVWWGGADTDY
ADGSEDKVVEVAEEEVVAEVEEEEADDDEDDEGDEVEEEAEPYEEATERTTSI
ATTTTTTESVEEVREVCSEQAETGPCRAMISR WYFDVTEGKCAPFFYGGCGGN
RNNFDTEEYCMAVCGSAMSQSLLKTTQEPLARDPVKLPTTAASTPDAVDKYLETP
GDENEHAHFQKAKELEAKHRERMSQVMREWEEAERQAKNLPKADKKA VIQHF
25 QEKVESLEQEAANERQQLVETHMARVEAMLNDRRR LALENYITALQAVPPRPH
VFNMLKKYVRAEQKDRQHTLKHFEHVRMVDPKKAAQIRSQVMTHL RVIYERMN
QLSLLYNVPAVAEEIQDEVDELLQKEQNYSDDV LANMISEPRISYGN DALMPSLT
ETKTTVELLPVNGEFSLDDLQPWHSFGADSV PANTENEVEPV DARP AADRG LTR
PGSGLTNIKTEEISEVKMDAEFRHD SGYEVHHQKLVFFAEDVGSNKGAI GLMVGG
30 VVIATVIVITLVM LKKQYTSIHHGVVEVDAAVTPEERHLSKMQN QGYENPTYKF
FEQMQN

SEQ ID No: 24 (SXN1)

MSGELPPNINIKEPRWDQSTFIGRANHFFTVDPRNILLTNEQLESARKIVHDYRQG
IVPPGLTENELWRAKYTYDSAFHPDTGEKMLIGRMSAQVPMNMTITGCMMTFYR
TTPAVLFWQWINQSFNAVVNYTNRSGDAPLTVNELGTAYVSATTGAVATALGLN
5 ALTKHVSPLIGRFVPFAAVAAANCINIPLMRQRELKVGIPVTDENGNRLGESANAA
KQAITQVVVSRLMAAPGMAIPPFIMNTLEKKAFLKRFPWMSAPIQVGLVGCLVF
ATPLCCALFPQKSSMSVTSLEAELQAKIQESHPELRRVYFNKGL

SEQ ID No: 25 (SORL1)

10 MATRSSRRESRLPFLFTLVALLPPGALCEVWTQRLHGGSAPLPQDRGFLVVQGDP
RELRLWARGDARGASRADEKPLRRKRSAALQPEPIKVYGQVSLNDSHNQMVVH
WAGEKSNVIVALARDSLALARPSSDVYVSYDYGKSFKKISDKLNFGLGNRSEAV
IAQFYHSPADNKRYIFADAYAQYLWITFDFCNTLQGFSIPFRAADLLLHSKASNLLL
GFDRSHPNKQLWKSDDFGQTWIMIQEHVKSFSWGIDPYDKPNTIYIERHEPSGYST
15 VFRSTDFFQSRENQEVLVEVRDFQLRDKYMFAKVVHILLGSEQQSSVQLWVSFG
RKPMRAAQFVTRHPINEYYIADASEDQVFVCVSHSNNRTNLYISEAEGLKFSLSLE
NVLYYSPGGAGSDTLVRYFANEPEFADFHRVEGLQGVYIATLINGSMNEENMRSVI
TFDKGGTWEFLQAPAFTGYGEKINCSELQGCSLHLAQRLSQLNLQLRRMPILSKE
SAPGLIIATGSVGKNLASKTNVYISSLASAGARWREALPGPHYYTWGDHGGITAIAQ
20 GMETNELKYSTNEGETWKTIFSEKPVFVYGLLTERGEKSTVFTIFGSNKENVHSW
LILQVNATDALGVPCTENDYKLWSPSDERGNECLLGHKTVFKRRTPHATCFNGED
FDRPVVVSNCSTREDYECDFGFKMSEDLLEVCPDPEFSGKSYSPPVPCPGVST
YRRTRGYRKISGDTCSGGDVEARLEGELVPCPLAEENEFILEYAVRKSIYRYDLASG
ATEQLPLTGLRAAVALDFDYEHNCLYWSDLALDVIQRLCLNGSTGQEVIINSGLET
25 VEALAFEPLSQLLYWVDAGFKKIEVANPDGDFRLTIVNSSVLDPRRALVLVPQEGV
MFWTDWGDLKPGIYRSNMDGSAAYHLSVEDVKWPNGISVDDQWIYWTDAYLEC
IERITFSGQQRSVILDNLPHPYAIAVFKNEIYWDDWSQLSIFRASKYSGSQMEILAN
QLTGLMDMKIFYKGKNTGSNACVPRPCSLLCLPKANNRSRCRCPEDVSSVLPNG
30 DLMCDCPQGYQLKNNTCVKEENTCLRNQYRCNSNGNCINSIWWCDFNDCGDMS
DERNCPTTICDLDTQFRCQESGTCIPLSYKCDLEDDCGDNSDESHCEMHQCRSDEY
NCSSGMICRSSWVCDGDNDCRDWSDEANCTAIYHTCEASNFQCRNGHCIPQRWA
CDGDTDCQDGSDEDPVNCEKKCNGFRCPNGTCIPSSKHCGLRDCSDGSDEQHCE

PLCTHFMDVCKNRQQCLFHSMVCDGIIQCRDGSDEAAFAGCSQDPEFHVCDE
FGFQCQNGVCISLIWKCDGMDDCGDYSDEANCENPTEAPNCSR YFQFRCENGHCI
PNRWKCDRENDGDWSDEKDCGDSHILPFSTPGPSTCLPNYYRCSSGTCVMDTW
VCDGYRDCADGSDEEACPLLANVTAASTPTQLGRCDRFEFECHQPKTCIPNWKRC
5 DGHQDCQDGRDEANCPTHSTLTcmsREFQCEDGEACIVL SERCDGFLDCSDESDE
KACSDELT VYKVQNLQWTADFSGDVTLTWMRPKKMPSASCVYNVYYRVGESI
WKTLETHSNKTNTVLKVLKPDTTYQVKVQVQCLSKAHNTNDFVTLRTPEGLPDA
PRNLQLSLPRAEGVIVGHWAPPIHTHGLIREYI VEYSRSGSKMWASQRAASNFTEI
KNLLVNTLYTVRVAAVTSRGIGNWSDSKSITTIKGKVIPPDIHIDSYGENYLSFTLT
10 MESDIKVNGYVVNLWAFDTHIKQERRTLNFRGSILSHKVGNLTAHTSYEISAWAK
TDLGDSPLAFEHVMTRGVRPPAPSLKAKAINQTA VECTWTGPRNVVYGYATSF
LDLYRNPKSLTTSLHNKTVIVSKDEQYLFLVRVVVPYQGPSSDYVVVKMIPDSRLP
PRHLHVVHTGKTSVVIKWESPYDSPDQDLLYAIAVKDLIRKTDRSYKVKSRNSTV
ETYLNKLEPGGKYHIVQLGNMSKDSSIKITVSL SAPDALKIITENDHVLLFWKSL
15 ALKEKHFNESRGYEIHMFDSAMNITA YLGNTTDNFFKISNLKM GHNYTFTVQARC
LFGNQICGEPAILLYDELGSGADASATQAARSTDVAA VVVPILFLILLSLGVGFAIL
YTKHRRLQSSFTA FANSHYSSRLGSAIFSSGDDLGEDDEDAPMITGFSDDVPMVIA

SEQ ID No: 26 (SPC18)

20 MLSLDFLDDVRRMNKRQLYYQVLNFGMIVSSALMIWKGLMVITGSESPIVVVLSG
SMEPAFHRGDLLFLTNRVEDPIRVGEIVVFRIEGREIPIVHRVLKIHEKQNGHIKFLT
KGDNNAVDDRGGLYKQGQHWLEKKDVVGRARGFVPYIGIVTILMNDYPKFKYAV
LFLLGLFVLVHRE

25 SEQ ID No: 27 (SPC22)

MNTVLSRANSLFAFSLSVMAALTFCFITTAFKDRSVPVRLHVSRIMLKNVEDFTG
PRERSDLGFIITSITADLENIFDWNVKQLFLYLSAEYSTKNNALNQVVLWDKIVLR
GDNPKLLLKDMKTYFFFDDGNGLKGNRNVTLTLSWNVVPNAGILPLVTGSGHV
SVPFPDTYEITKSY

30

SEQ ID No: 28 (SPC25)

MAAAAVQGGRSGSGGCSGAGGASNCGTGSGRSGLLDKWKIDDKPVKIDKWDG
SAVKNSLDDSAKKVLLEKYKYVENFGLIDGRLTICTISCFFAIVALIWDYMHPPES
KPVLALCVISYPLFMLSFMMSGILTYSYKEKSIFLVAHRKDPTGMDPDDIWQLS
SSLKRFDDKYTLKLTISGRTKQQREAFTKSIAKFFDHSGTLVMDAYEPEISRLHD

5 SLAIERKIK

SEQ ID No: 29 (stearoyl-CoA desaturase)

MPAHLQLDDISSSYTTTTITAPPSRVLQNGGDKLETMPLYLEDDIRPDIKDDIYDP
TYKDKEGPSPKVEYVWRNIIILMSLLHLGALYGITLIPTCKFYTWLWGVFYYFVSAL
10 GITAGAHRLWSHRSYKARLPLRLFLIIANTMAFQNDVYEWARDHRAHHKFSETHA
DPHNSRRGFFFSHVGWLLVRKHPAVKEKGSTLDLSLEAEKLVMFQRRYYKPGL
LMMCFILPTLVPWYFWGETFQNSVFVATFLRYAVVLANATWLVNSAAHLFGYRPY
DKNISPRENILVSLGAVGEGFHNYHHSFPYDYSASEYRWHINFTFFIDCMAALGL
AYDRKKVSKAAILARIKRTGDGNYKSG

15

SEQ ID No: 30 (TMP21)

MSGMSGPPARRGPFLALLLFLLGPRLVLAISFHLPIINSRKCLREEHKDLLVTGAY
EISDQSGGAGGLRSHLKIDSAHILYSKEDATKGKFAFTTEDYDMFEVCFESKGT
GRIPDQLVILDMKHGVEAKNYEEIAKVEKLKPLEVELRRLEDLSESIVNDAYMKK
20 REEEMRDTNESTNTRVLYFSIFSMCLIGLATWQVFYLRRFFKAKKLIE

SEQ ID No: 31 /VLCAD)

MSGCGLFLRTTAAARACRGLVVSTANRLLRTSPPVRAFAKELFLGKIKKKEVFPF
PEVSQDELNEINQFLGPVEKFFTEEVDSRKIDQEGKIPDETLEKLKSLGLFGLQVPEE
25 YGGLGFSNTMYSRLGEISMDGSITVTLAAHQAIQLKGIILAGTEEQKAKYLPKLAS
GEHIAAFCLTEPASGSDAASIRSRTLSEDKKHYILNGSKVWITNGGLANIFTVFAK
TEVVDSDGSVKDKITAFIVERDFGGVTNGKPEDKLGIRGSNTCEVFENTKIPVENI
LGEVGDGFKVAMNLNSGRFSMGSVAGLLKRLIEMTAEYACTRKQFNKRLSEFG
LIQEKFALMAQKAYVMESMTYLTAGMLDQPGFPDCSIEAAMVKVFSSEAWQCV
30 SEVLQILGGGLGYTRDYPYERILRDTRILLIFEGTNEILRMYIALTGLQHAGRILTTRIH
ELKQAKVSTVMDTVGRRRLDLSGRTVDLGLTGNHGVVHPSLADSANKFEENTYC
FGRTVETLLLRFGKTIMEEQLVLKRVANILINLYGMTAVLSRASRSIRIGLRNHDHE

VLLANTFCVEAYLQNLFSLSQLDKYAPENLDEQIKKVSQQILEKRAYICAHPLDRT
C

SEQ ID No: 32 (YME1L1)

5 MFSLSSTVQPQVTVPLSHLINAFTPNTSVSLSGVSVSQNZHRDVVPEHEAPSSEP
SLNLRDLGLSELKIGQIDQLVENLLPGFCKGKNISSHWHTSHVSAQSFFENKYGNL
DIFSTL RSSCLYRHHSRALQSICSDLQYW PVFIQSRGFKTLKSRT RRLQSTSERLAET
QNIAPSFVKGFLLRDRGSDVESLDKLMKTKNIP EAHQDAFKTGFAEGFLKAQALT
QKTNDSLRRTRLILFVLLLFGIYGLLKNPFLSVRFRTTGLDSA VDPVQMKNVTFE
10 HVKGVEEAKQELQEVVEFLKNPQKFTILGGKLPKGILLVGPPGTGKTLLARAVAG
EADVPFYYASGSEFDEMFGVVGASRIRNLREAKANAPCVIFIDEELSVGGKRIESPM
MHPYSRQTINQLLAEMDGFKPNEGVIIGATNFPEALDNALIRPGRFDMQVTVPRP
DVKGRT EILKWYLNKIKFDQSVDPEIARGTVGFSGAELENLVNQAALKAAVDGK
EMVTMKELEFSKDKILMGPERRSVEIDNKNKTITAYHESGHAIAYYT K DAM PINK
15 ATIMPRGPTLGHVSLLPENDRWNETRAQLLAQMDVSMGGRVAEELIFGTDHITTG
ASSDFDNATKIAKRMVTKFGMSEKLGVM TYS DTGKLSPETQSAIEQEIRILLRDSY
ERAKHILKTHAKEHKNLAEALLTYETLDAKEIQIVLEGKKLEVR

SEQ ID No: 33 (LAPTM4B)

20 MVNYAWAGRSQRKLWWRSVAVLCKSVVRPGYRGGLQARRSTLLKTCARARA
TAPGAMK MVAPWTRFYSNSCCLCCHVRTGTILLGVWYLIINAVVLLILLSALADP
DQYNFSSSELGGDFEFMDDANMCIAIAISLLMILICAMATYGA YKQRAAWIIPFFC
YQIFDFALNMLVAITVLIYPNSIQEYIRQLPPNFPYRDDVMSVNPTCLVLIILLFISIIL
TFKGYLISCVWNCYRYINGRNSSDVLVYVTSNDTTVLLPPYDDATVNGAAKEPPP
25 PYVSA

SEQ ID No: 34 (S100alpha)

MGSELETAMETLINVFHAHSGKEGDKYKLSK KELLQTEL SGFLDAQKD VDA
VDKVMKELDENGDGEVDFQEYVVLVAALT VACNNFFWENS

30

SEQ ID No:35 (Cadherin EGF LAG seven-pass G-tpe receptor 2)

MRSPATGVPLPTPPPLLLLLLPPPLLGQVGPCRSIGSRGRGSSGACAPMGW
LCPSSASNLWLYTSRCRDAGTELTGHLVPHDGLRVWCPSEAHIPPAPEGCPW
SCRLLGIGGHLSPQGKLTLPPEEHPCLKAPRLRCQSCCKLAQAPGLRAGERSPEESLG
GRRKRNVTAPQFQPPSYQATVPENQAGTPVASLRAIDPDEGEAGRLEYTMDAL
5 FDSRSNQFFSLDPVTGAVTTAEELDRETKSTHVFRTAQDHGMPRRSALATLILV
TDTNDHDPVFEQQEYKESLRENLEVGYEVLTVRATDGDAPPNANILYRLLEGSGG
SPSEVFEIDPRSGVIRTRGPVDREEVESYQLTVEASDQGRDPGPRSTTAAVFLSVED
DNDNAPQFSEKRYVVQVREDVTPGAPVLRVTASDRDKGSNAVHYSIMSGNARG
QFYLDAQTGALDVVSPLDYETTKEYTLRVRAQDGGRPPLSVSGLVTQVLDIND
10 NAPIFVSTPFQATVLESVPLGYLVHVQAIADAGDNARLEYRLAGVGHDPPFTIN
NGTGWISVAAELDREEVDFYSGVVEARDHGTPALTASASVSVTLDVNDNNPTFT
QPEYTVRLNEDAAGTSVVTSAVDRDAHSVITYQITSGNTRNRFSITSQSGGGLV
SLALPLDYKLERQYVLAVTASDGTRQDTAQIVVNVTDANTHRPVFQSSHYTNVN
NEDRPAGTTVVLISATDEDTGENARITYFMEDSIPQFRIDADTGAVTTQAELDYED
15 QVSYTLAITARDNGIPQKSDTTLLEILVNDVNDNAPQFLRDSYQGSVYEDVPPFTS
VLQISATDRDGLNGRVFYTFQGGDDGDGDFTESTSGIVRTLRRLDRENVQAQYVL
RAYAVDKGMPPARTPMEVTVLDVNDNPPVFEQDEFDVVEENSPIGLAVARVT
ATDPDEGTNAQIMYQIVEGNIPEVFQLDIFSGELTALVDLDYEDRPEYVLVIQATSA
PLVS RATVHVRLLDRNDNPPV LGNFEILFNNYVTNRSSFP GGAIGR VPAHDPDISD
20 SLTYSFERGNELSLVLLNASTGELKLSRALDNNRPLEAIMSVLVSDGVHSVTAQCA
LRVTIITDEM LTHSITLRLLEDMSPERFLSPLLGLFIQAVAATLATPPDHVVVFNVQR
DTDAPGGHILNVSLSVGQPPGP GGGPPFLPSEDLQERLYLNRSLLTAISAQRVLPFD
DNICLREPCENYMRCVSLRFDSSAPFIASSSVLFRPIHPVGLRCRCPPGFTGDYC
ETEVDLCYSRPCGPHGRCRSREGGYTCLCRDGYTGEHCEVSARSGRCTPGVCKNG
25 GTCVNLLVGGFKCDCPSGDFEKPYCQVTRSFPAHSFITFRGLRQRFHFTLALSFAT
KERDGLLLYNGRNEKHDFALEVIQEQQVQLTFSAGESTTVSPFVPGGVSDGQW
HTVQLKYYNKPLLQGPSEQKVA VVTVDGCDTGVALRFGSVLGNYSCAA
QGTQGGSKKSLDLTGPLLGGVPDLPESFPVRMRQFVGCMRNLQVDSRHIDMADF
IANNGTVPGCPAKKNVCDSNTCHNGGTCVNQWDAFSCECPLGF GGKSCAQEMAN
30 PQHFLGSSLVAWHGLSLPISQPWYLSLMFRTRQADGVLLQAITRGRSTITLQLREG
HVMLSVEGTGLQASSLRLEPGRANDGDWHHAQLALGASGGPGHAILSF DYGQQR
AEGNLGPR LHGLHLSNITVGGIPGPAGGVARGFRGCLQGVRVSDTPEGVNSLDP SH

GESINVEQGCSLPDPCDSNPCPANSYCSNDWDSYSCSCDPGYYGDNCTVCDLNP
CEHQSVCTRKPAPHGYTCECPPNYLGPYCETRIDQPCPRGWWGHPTCGPCNCDV
SKGFDPCNKTSGECHCKENHYRPPGSPTCLLCDCYPTGSLSRVCDPEDGQCPCKP
GVIGRQCDRCDNPFAEVTTNGCEVNYDSCPRAIEAGIWWPRTRFGLPAAAPCPKG
5 SFGTAVRHCDEHRGWLPPNLNFNCTSITFSELKGFAERLQRNESGLDSGRSQQLALL
LRNATQHTAGYFGSDVKVAYQLATRLLAHESTQRGFGLSATQDVHFTENLLRVG
SALLDTANKRHWELIQQTEGGTAWLLQHYEAYASALAQNMRHTYLSPTIVTPNI
VISVVRLDKGNFAGAKLPRYEALRGEQPPDLETTVILPESVFRETPPVVRPAGPGEA
QEPEELARRQRRHPELSQGEAVASVITYRTLAGLLPHNYDPDKRSRVPKRPIINTP
10 VVSISVHDDEELLPRALDKPVTVQFRLLETEERTKPICVFVNHSILVSGTGGWSAR
GCEVVFRNESHVSCQCNCNHMTSFAVLMDVSRRENGIELPLKTLTYVALGVTLAALL
LTFFFLLRLRILRSNQHGIRRNLTAALGLAQLVFLLGINQADLPFACTVIAILLHFLY
LCTFSWALLEALHLYRALTEVRDVNTGPMRFYYMLGWGVPAFITGLAVGLDPEG
YGNPDFCWLSIYDTLIWSFAGPVAVSMSVFLYILAARASCAAQRQGFEKKGPV
15 SGLQPSFAVLLLSATWLLALLSVNSDTLLFHYLFATCNCIQGPFIFLSYVVLSK
RKALKLACSRKPSPDPALTTKSTLTSSYNCSPYADGRLYQPYGDSAGSLHSTSRS
GKSQPSYIPFLLREESALNPGQGPPGLDPGLFLEGQDQQHDPDTDSDSDLSLEDD
QSGSYASTHSSDSEEEEEEEAAFPGEQGWDSLLGPGAEERLPLHSTPKDGGPGP
GKAPWPGDFGTTAKESSNGAPEERLRENGDALSREGSLGPLPGSSAQPHKGILKK
20 KCLPTISEKSSLRLPLEQCTGSSRGSSASEGSRGGPPRPPRQSLQEQLNGVMP
MSIKAGTVDEDSSGSEFLFFNFLH

SEQ ID No:36 (Calsyntenin)

MLRRPAPALAPAARLLLAGLLCGGGVWAARVNKHKPWLEPTYHGIVTENDNTVL
25 LDPPLIALDKDAPLRFAESFEVTVTKEGEICGFKIHGQNVPFDAVVVDKSTGEGVIR
SKEKLDCELQKDYSFTIQAYDCGKGPDGTNVKKSHKATVHIQVNDVNEYAPVFK
EKSYKATVIEGKQYDSILRVEAVDADCSPQFSQICSYEIITPDVPFTVDKDGYIKNTE
KLNYGKEHQYKLTVAYDCGKKRATEDVLVKISIKPTCTPGWQGWNNRIYEPM
TGALAVFPNIHLETCDPVASVQATVELETSHIGKGCDRDTYSEKSLHRLCGAAAG
30 TAELLPSPSGSLNWTMGLPTDNGHDSDQVFEPNGTQA VRIPDGVVSPKEPFTIS
VWMRHGPFGRKKETILCSSDKTDMNRHHYSLYVHGCRLLFLFRQDPSEEKKYRPA
EFHWKLNQVCDEEWHYVLNVEFPSVTLYVDGTSHEPFSVTEDYPLHPSKIETQL

VVGACWQEFGVENDNETEPVTVASAGGDLHMTQFFRGNLAGLTLRSGKLADKK
VIDCLYTCKEGLDLQVLEDSGRGVQIAHPSQLVLTLEGEDLGELDKAMQHISYL
NSRQFPTPGIRRLKITSTIKCFNEATCISVPPVDGYVMVLQPEEPKISLSGVHHFARA
ASEFESSEGVFLFPELRIISTITREVEPEGDGAEDPTVQESLVSEEIVHDLDTCEVTVE
5 GEELNHEQESLEVDMARLQQKGIEVSSSELGMTFTGVDTMASYEEVLHLLRYRN
WHARSLLDRKFKLICSELNGRYISNEFKVEVNVIHTANPMEHANHMAAQPQFVHP
EHRSFVDLSGHNLANPHPFAVVPSTATVVIVVCSFLVFMIIILGVFRIRAAHRRTM
RDQDTGKENEMDWDDSAALTITVNPMETYEDQHSSEEEEEEESEDGEEDDIT
SAESESSEEEGEQGDPQNATRQQLEWDDSTLSY

10

SEQ ID No: 37 (visinin-like 1)
MGKQNSKLAPEVMEDLVKSTEFNEHELKQWYKGFLKDCPSGRLNLEEFQQLYVK
FFPYGDASKFAQHAFRTFDKNGDGTIDREFICALSITSRGSFEQKLNWAFNMYDL
DGDGKITR VEMLEIIEAIYKMGTVIMMKMNEDGLTPEQRVDKIFSKMDKNKDD
15 QITLDEFKEAAKSDPSIVLLLQCDIQK

SEQ ID No: 38 (BACE1)
MAQALPWLLLWMGAGVLPAHGTQHGIRLPLRSGLGGAPLGLRLPRETDEEPEEPG
RRGSFVEMVDNLRGKSGQGYVEMTVGSPPQLTNILVDTGSSNFAVGAAPHFLH
20 RYYQRQLSSTYRDLRGVYVPTYQGKWEGETDLCGAGFPLNQSEVLASVGG
SMIIGGIDHSLYT GSLWYTPIRREWYYEVITVR VEINGQDLKMDCKE NYDKSIVDS
GTTNLRLPKKVFEAAVKSIAASSTEKFPDGFWLGEQLVCWQAGTTPNIFPVISL
YLMGEVTNQSFRITILPQQYLRPVEDVATSQDDCYKFAISQSSTGTVMGA VIMEGF
YVVFDRAKRIGFAVSACHVHDEFRTAAVEGPFTLDMEDCGYNIPQTDESTLMT
25 IA YVMAAICALFMLPLCLMVCQWRCLRCLRQQHDDFADDISLLK

SEQ ID No: 39 (CELSR2)
MRSPATGVPLPTPPPPLLLLLLPLPPLLDQVGPCRSLSRGSRGSSGACAPMGW
LCPSSASNLWLYTSRCRDAGTEL TGHLPVPHDGLRVWCPSEAHIPPLPAPEGCP
30 WSCRLLGIGGHLS PGKLTLP EEHPC LKA PRLRCQSCKLAQAPGLRAGERSPEESL
GGRRKRN VNTAPQFQPPSYQATVPENQ PAGTPV ASLRAIDPDEGEAGRLEYTMDA
LFDSRSNQFFSLDPVTGA VTTAEELDRETKSTH VFRVTAQDHGMPRRSALATLTL

VTDTNDHDPVFEQQEYKESLRENLEVGYEVLTVRATDGDAPPNANILYRLLEGSG
GSPSEVFEIDPRSGVIRTRGPVDREEVESYQLTVEASDQGRDPGPRSTTAAVFLSVE
DDNDNAPQFSEKRYVVQVREDVTPGAPVLRVTASDRDKGSNAVHYSIMSGNAR
GQFYLDAQTGALDVVSPLDYETTKEYTLRVRAQDGGRPLSNVSGLVTVQVLDIN
5 DNAPIFVSTPFQATVLESVPLGYLVLHVQAIDADAGDNARLEYRLAGVGHDFPFTI
NNGTGWISVAAELDREEVDFYSGVEARDHGTALTAASASVSVTLDVNDNNPTF
TQPEYTVRLNEDAAVGTSVVTVSAVDRDAHSVITYQITSGNTRNRFSITSQSGGGL
VSLALPLDYKLERQYVLAVTASDGTRQDTAQIVVNVTDANTHRPVFQSSHYTVN
VNEDRPAGITVVLISATDEDTGENARITYFMEDSIPQFRIDADTGAVTTQAELDYE
10 DQVSYTLAITARDNGIPQKSDTTLYLEILVNDVNDNAPQFLRDSYQGSVYEDVPPFT
SVLQISATDRDGLNGRVFYTQGGDDGDGFIVESTSGIVRTLRLDRENVAQYV
LRAYAVDKGMPPARTPMEVTVLDVNDNPPVFEQDEFDVFVEENSPIGLAVAR
VTATDPDEGTNAQIMYQIVEGNIPEVFQLDIFSGELTALVDLDYEDRPEYVLVIQAT
SAPLVS RATVHVRLLDRNDNPPV LGNFEILFNNYVTNRSSSFPGGAIGRVPAHD PDI
15 SDSLTYSFERGNELSLVLLNASTGELKLSRALDNNRPLEAIMSVL VSDGVHSVTAQ
CALRVTIITDEMLTHSITLRLEDMSPERFLSPLLGLFIQAVAATLATPPDHVVVFNV
QRDTDAPGGHILNVSLSVGQPPGPGGGPPFLPSEDLQERLYLNRSLLTAISAQRVLP
FDDNICLREPCENYMRCVSLRFDSSAPFIASSSVLFRPIHPVGGLRCRCPGFTGD
YCETEVDLCYSRPCGPHGRCRSREGGYTCLCRDGYTGEHCEVSARSGRCTPGVCK
20 NGGTCVNLLVGGFKCDCPSGDFEKPYCQVTTRSPAHSFITFRGLRQRFHFTLALS
FATKERDGLLYNGRFNEKDFVALEVIQEQQVQLTFSAGESTTVSPFVPGGVSDG
QWHTVQLKYYNKPLLQQTGLPQGPSEQKVA VVTVDGCDTGVALRGSVLGNYS
CAAQGTQGGSKKSLDLTGPLLGGVPDLPESFPVRMRQFVGCMRNLQVDSRHID
MADFIANNGTVPGCPAKKNVCDSNTCHNGGTCVNQWDASFCECPLGF GGKSCAQ
25 EMANPQHFLGSSLVAWHGLSLPISQPWYLSLMFRTRQADGVLLQAITRGRSTITLQ
LREGHVMLSVEGTGLQASSLRLEPGRANDGDWHHAQLALGASGGPGHAILSFDY
GQQRAEGNLGPRLHGLHLSNITVGGIPGPAGGVARGFRGCLQGVRVSDTPEGVNS
LDPSHGESINVEQGCSLPDPCDSNPCPANSYCSNDWDSYSCSCDPGYYGDNCTNV
CDLNPCHEQS VCTR KPSAPHGYTCECPPNLYGPYCETRIDQPCPRGWWGHPTCGP
30 CNCDVSKGFDPDCNKTSGECHCKENHYRPPGSPTCLLCDCYPTGSLSRVCDPEDG
QCPCPGVIGRQCDRCDNPFAEVITNGCEVNYDSCPRAIEAGIWWPRTRFGLPAA
APCPKGSGFTA VRHCDEHRGWLPPNLFNCTSITFSELKGFAERLQRNESGLDSGRS

QQLALLRNATQHTAGYFGSDVKVAYQLATRLLAHESTQRGFGLSATQDVHFT
 NLLRVGSALLDTANKRHWELIQQTEGGTAWLLQHYEAYASALAQNMRHTYLSPF
 TIVTPNIVISVVRLDKGNFAGAKLPRYEALRGEQPPDLETTVILPESVFRETPPVVRP
 AGPGEAQEPEELARRQRRHPELSQGEAVASVITYRTLAGLLPHNYDPDKRSLRVPK
 5 RPIINTPVVSISVHDDEELLPRALDKPVTQFRLLETEERTKPICVFVNHSILVSGTG
 GWSARGCEVVFRNESHVSCQCNCNHMTSFAVLMDVSRRNGEILPLKTLTYVALGV
 TLAALLLTFFFLTLLRILRSNQHGIIRNLTAALGLAQLVFLLGINQADLPFACTVIAI
 LLHFLYLCTFSWALLEALHLYRALTEVRDVNTGPMRFYYMLGWGVPAFITGLAV
 GLDPEGYGNPDFCWLSIYDTLIWSFAGPVAFAVSMSVFLYILAARASCAAQRQGF
 10 EKKGPVSGLQPSFAVLLLSATWLLALLSVNSDTLLFHYLFACTNCIQGPFIFLSYV
 VLSKEVRKALKLACSRKPSPDPALTTKSTLTSSYNCSPYADGRLYQPYGDSAGSL
 HSTSRSGKSQPSYIPFLLREESALNPGQGPPGLDPGSLFLEGQDQQHDPDTDSDSD
 LSLEDDQSGSYASTHSSDSEEEEEEEAAFPGEQGWDSLLGPGAEERLPLHSTPK
 DGGPGPGKAPWPGDFGTTAKESSGNGAPEERLRENGDALSREGSLGPLPGSSAQP
 15 HKGILKKKCLPTISEKSSLRLPLEQCTGSSRGSSASEGSRGGPPRPPPRQSQLQEQL
 NGVMPILMSIKAGTVDEDSSGSEFLFFNFLH

SEQ ID No: 40 (FADS2)

MGKGGNQGEGAAEREVSVPTFSWEEIQKHNLRTDRWLVIDRKVYNITKWSIQHP
 20 GGQRVIGHYAGEDATDAFRAFHPDLEFGKFLKPLLIGELAPEEPSQDHGKNSKIT
 EDFRALRKTAEDMNLFKTNHVFLLLLAHIALESIAWFTVFYFGNGWIPTLITAFV
 LATSQAQAGWLQHDYGHLSVYRKPWNHLVHKFVIGHLKGASANWWNHRHFQ
 HHAKPNIFHKDPDVNMLHVFVLGEWQPIEYGKKKLKYLPPYNHQHEYFFLIGPPLI
 PMYFQYQIIMTMVHKNWVDLAWAVSYYIRFFITYIPFYGILGALLFLNFIRFLESH
 25 WFVWVTQMNHVMEIDQEAYRDWFSSQLTATCNVEQSFFNDWFSGHLFNFQIEHH
 LFPTMPRHNLHKIAPLVKSLSAKHGIEYQEKPILLALLDIIRSLKKSGKLWLDAYL
 HK

SEQ ID No: 41 (NogoA)

30 MEDLDQSPLVSSSDSPPRPQPAFKYQFVREPEDEEEEEEEEEEDEDDEDLEELEVLER
 TEFSELEYSEMGSFSVSPKAESA VIVANPREEIIVKNKDEEKLVSNNILHNQQELP
 TALTKLVKEDEVVSSEKAKDSFNEKRAVEAPMREYADFKPFERVWEVKDSKE

DSDMLAAGGKIESNLESKVDKKCFADSLEQTNHEKDSESSNDDTSFPSTPEGIKDR
SGAYITCAPFNPAATESIATNIFPLLGDPSENKTDEKKIEEKKAQIVTEKNTSTKTS
NPFLVAAQDSETDYVTTDNLTKVTEEVANMPEGLTPDLVQEACESELNEVTGTK
IA YETKMDLVQTSEVMQESLYPAAQLCPSFEESEATPSPVLPDIVMEAPLNSAVPS
5 AGASVIQPSSSPLEASSVNYESIKHEPENPPPYEEAMSVSLKKVSGIKEEIKEPENIN
AALQETEAPYISIACDLIKETKLSAEPAPDFSDYSEMAKVEQPVPDHSELVEDSSPD
SEPVDLFSDDSDIPDVPQKQDETVMLVKESLTETSFESMIEYENKEKLSALPPEGGKP
YLESFKLSLDNTKDTLLPDEVSTLSKKEKIPLQMEELSTAVYSNDDLFISKEAQIRE
TETFSDDSSPIEIIDFPTLISSKTDTSKLA REYTDLEVSHKSEIANAPDGAGSLPCTEL
10 PHDLSLKNIQPKVEEKISFSDDFSKNGSATSKVLLLPPDV SALATQAEIESIVKPKVL
VKEAEKKLPSDTEKEDRSPSAIFSAELSKTSVVDLLYWRDIKKTGVVFGASLFLLLS
LTVFSIVSVTAYIALALLSVTISFRIYKGVIQAIQKSDEGHPFRA YLESEVAISEELVQ
KYSNSALGHVNCTIKELRRFLVDDLVDLSKFAVLMWWFTYVGALFNGLTLILA
LISLFSVPVIYERHQAQIDHYLGLANKNVKDAMAKIQAKIPGLKRKAE

15

SEQ ID No: 42 (OS-9)

MAAETLLSSLLGLLLLGLLLPA SLTGGVGSLNLEELSEMRYGIEILPLPVMGGQSQS
SDVVIVSSKYKQRYE CRLPAGAIHFQREREETPA YQGPGIPELLSPMRDAPCLLKT
KDWWTYEFCYGRHIQQYHMEDSEIKGEVLYLGYYQSAFDWDDETAKASKQHRL
20 KRYHSQTYGN GSKCDLNGRPRAE VRFLCDEGAGISG DYIDRVDEPLSCSYVLTIR
TPRLCPHPLL RPPPSAAPQAILCHPSLQPEEYMA YVQRQAVDSKQYGDKIIIEELQDL
GPQVWSETKSGVAPQKMAGASPTKDDSKDSDFWKMLNEPEDQAPGGEVPAEE
QDPSPEAADSASGAPNDFQNNVQVKVIRSPADLIRFIEELKG GTKKGKPNIGQEQP
VDDAAEVPQREPEKERGDPERQREMEEEDED EDEDERQLLGEFEKELEGIL
25 LPSDRDRRLRSEVKAGMERELENIIQEASPA LPPTEKELDPGLKKE SERDRA M LAL
TSTLNKLIKRL EEKQSP ELVKKHKKKR VVPKKPPPSPQPT EEDPEH RVR VR VTKLR
LGGPNQDLTVLEMKREN PQLKQIEGLVKELLER EGLTAAGKIEIKIVRPWAEGTEE
GARWLTDEDTRNLKEIFFN ILVPGAEAAQKERQRQKELESNYRRVWGSPGEGTG
DLDEFDF

30

SEQ ID No: 43 (PDGFRB)

MRLPGAMPALALKGELLLLSSLLEPQISQGLVVTPPGPELVNVSSTFVLTCGS
APVVWERMSQEPPQEMAKAQDGTFSSVLTNTGLDTGEYFCTHNDSRGLETDE
RKRLYIFVPDPTVGFLPNDAEELFIFLTEITEITIPCRVTDPQLVVTLHEKKGDVALP
VPYDHQRGFSGIFEDRSYICKTTIGDREVDSDAYYVYRLQVSSINVSNAVQTVVR
5 QGENITLMCIVIGNEVVNF EW TYPRKEVIGRLVEPVTDFL LDMPYHRSILHIPS AEL
EDSGTYTCNVTESVNDHQDEKA INITV VESGYV RLLGEV TLQFAELHRSRTLQV
VFEAYPPPTVLWFKDNRTLG DSSAGE LSTRNVSETRYVSELTLVRVKVAEAGH
YTMRAFHEDAEVQLSFQLQINVPVRVLELSESHPD SGEQT VRCRGRGMPQPNIWS
ACRDLKRCPRELPPTLLGNSSEEE S QLETN VTYWEEEQEFEVVSTLRLQHVD RPLS
10 VRCTLRNAVGQDTQE VIVVPHSLPFKVVVISAILALVVLTIISLII LIMLWQKKPRYE
IRWKVIESVSSDGHEYTYVDPMQLPYDSTWELPRDQLVLGRTLGSAGFGQVVEAT
AHGLSHSQATMKVAVKMLKSTAR S SEKQALMSELKIMSHLGPHLN VVNLLGACT
KGGPIYIITEYCRYGDLVDYLH R NKHTFLQHHSDKRRPPSAELYSNALPVGLPLPS
HVSLTGESDGGYMDMSKDESVDYVPM LDMKG DVKYADIESSNYMAPYDNYVPS
15 APERTCRATLINESPVLSYMDLVGFSYQVANGMEFLASKNCVHRDLAARNV LICE
GKLVKICDFGLARDIMRDSNYISKGSTFLPLKWMAPESIFNSLYTTLSDVWSFGILL
WEIFTLGGTPYPELPMNEQFYNAIKRGYRMAQPAHASDEIYEIMQKCWEEKFEIRP
PFSQLVLLERLLGEGYKKKYQQVDEEFLRSDHPAILRSQARLPGFHGLRSPLDTSS
VLYTAVQPNEGNDYIIPLPDPKPEVADEGPLEGSPSLASSTLNEVNTSSTISCD SPL
20 EPQDEPEPEPQLELQVEPEPELEQLPDSGCPAPRAEAEDSFL

SEQ ID No: 44 (PTK7)

MGAARGSPARPRRLPLLSVLLPLGGTQTAIVFIKQPSSQDALQGR R ALLRCEVE
APGPVH VY WLLDGAPVQDTER RFAQGSSLSFAAVDRLQDSGT FQC VARD VTGE
25 EARSANASFNIK WIEAGPVVLKHPASEAEIQPQTQVTLRCHIDGHPRPTYQWFRDG
TPLSDGQSNHTVSSKERNLTLRAGPEHSGLYSCCAHSAGQACSSQNFTLSIADES
FARVVLAPQDVVVAR YEEAMFHCQFSAQPPPSLQWLFEDETPTINRSRPPHLRRAT
VFANGSLLTQVRPRNAGIYRCIGQGQRGPPIILEATLHLAEIEDMPLFEPRVFTAGS
EERVTCLPPKG LPEPSV VWEHAGVRLPTHGRVYQKGHELVLANIAESDAGVYTC
30 HAANLAGQRRQDVNITVATVPSWLKKPQDSQLEEGKPGYLDCLTQATPKPTVVW
YRNQMLISEDSRFEVKNGTLRINSVEVYDGTWYRCMSSTPAGSIEAQARVQVLE
KLKFTPPPQPQQCMEFDKEATVPCSATGREKPTIKWERADGSSLPEWVTDNAGTL

HFARVTRDDAGNYTCIASNGPQGQIRAHVQLTVAVFITFKVEPERTTVYQGHTAL
LQCEAQGDPKPLIQWKGDRLDPTKLGPRMHIFQNGSLVIHDVAPEDSGRYTCIA
GNSCNIKHTEAPLYVVDKPVPEESEGPGSPPPYKMIQTIGLSVGAAVAYIIAVLGLM
FYCKKRCKAKRLQKQPEGEPEMECLNGGPLQNGQPSAEIQEEVALTSLGSGPAA
5 TNKRHSTSDFMHFPRSSLQPIITLGKSEFGEVFLAKAQGLEEGVAETLVLVKSLSQS
KDEQQQLDFRRELEMFGKLNHANVVRLGLCREAEPHYMVEYVDLGDLKQFLR
ISKSKEKLKSQPLSTKQKVALCTQVALGMEHLSNNRFVHKDLAARNCLVSAQR
QVKVSALGLSKDGVNSEYYHFRQAWVPLRWMSPEAILEGDFSTKSDVWAFGVL
MWEVFTHGEMPHGGQADDEVLAIDLQAGKARLPQPEGCPSKLYRLMQRCWALSP
10 KDRPSFSEIASALGDSTVDSKP

SEQ ID No: 45 (UGCGL1)

MGCKGDASGACAAGALPVTGVCYKMGVLVVLTVLWLFSSVKADSKAITTSLLTK
WFSTPLLLEASEFLAEDSQEKFWNFVEASQNIGSSDHGTDYSYYHAILEAAFQFL
15 SPLQQNLFKFCLSLRSYSATIQAFQQIAADEPPPEGCNSFFSVHGKKTCESDTLEAL
LLTASERPKPLLKGDHRYPSSNPESPVVIFYSEIGSEEFNFHRQLISKSAGKINY
VFRHYIFNPRKEPVYLSGYGVELAIKSTEYKAKDDTQVKGTEVNTTVIGENDPIDE
VQGFLFGKLRDLHPDLEGQLKELRKHLVESTNEMAPLKVVWQLQDLSFQTAARILA
SPVELALVVMKDLSQNFPTKARAITKAVSSELRTVEENQKYFKGTLGLQPGDS
20 ALFINGLHMDLLTQDIFSLFDVLRNEARVMEGLHRLGIEGLSLHNVLKLNQPS
DYAVDIRSPAISWVNNLEVDSRYNSWPSSLQELLRPTFPGVIRQIRKNLHNMFIV
DPAHETTAELMNTAEMFLSNHIPLRIGFIFVVNDSEDVDMQDAGVAVLRAYNYV
AQEVDDYHAFQTLTHIYNKVRTGEKVKEHVSVLEKKYPYVEVNSILGIDSAYD
RNRKEARGYYEQTGVGPLPVVLFNGMPFEREQLDPDELETITMHKILETTTFFQRA
25 VYLGELPHDQDVVEYIMNQPNVVPRINSRILTAERDYLDDTASNNFFVDDYARFTI
LDSQGKTAAVANSMNYLTKKGMSSKEIYDDSFIRPVTFWIVGDFDPSGRQLLYD
AIKHQKSSNNVRISMINNPAKEISYENTQISRAIWAALQTQTSNAAKNFTKMAKE
GAAEALAAGADIAEFSVGGMDFLKEVFESSKMDFLSHAVYCRDVLKLKGQR
AVISNGRIIGPLEDSELFNQDDFHLLLENIILKTSGQKIKSHIQQLRVEEDVASDLVMK
30 VDALLSAQPKGDPRIEYQFFEDRHSAIKLRPKEGETYFDVVAVVDPVTREAQRLAP
LLLVLVLAQLINMNLRFMNCQSKLSDMPLKSFYRYVLEPEISFTSDNSFAKGPIAKFL
DMPQSPLFTLNLTNPESWMVESVRTPYDLDNIYLEEVDSVVAEYELEYLLLEGH

CYDITTGQPPRGLQFTLGT SANPVIVDTIVMANLGYFQLKANPGAWILRLRKGRSE
DIYRIYSHDGTDSPPDADEVVIVLNNFKSKIIVKVQKKADMVNEDLLSDGTSENE
SGFWDSFKWGFTGQKTEEVKQDKDDIINIFSVASGHLYERFLRIMMLSVLKNTKTP
VKFWFLKNYLSPTFKEFIPYMANEYNFQYELVQYKWPRLHQHQTEKQRIIWGYKI
5 LFLDVLFPLVVDKFLVDADQIVRTDLKELRDFNLDGAPYGYTPFCDSRREMDGY
RFWKSGYWASHLAGRKYHISALYVVDLKKFRKIAAGDRLRGQYQGLSQDPNSLS
NLDQDLPNNMIHQVPIKSLPQEWLWCETWCDDASKKRAKTIDLCNNPMTKEPKL
EAAVRIVPEWQDYDQEIKQLQIRFQKEKETGALYKEKTKEPSREGPQKREEL

10 SEQ ID No: 46 (CtnnB1)

MATQADLMELDMAMEPDRKAAVSHWQQQS YLD SGATTTAPSLSGKGNPEE
EDVDTSQVLYEWEQGFSQSFTQE QVADIDGQYAMTRAQRVRAAMFPETLDEGM
QIPSTQFDAAHPTNVQRLAEPSQLKHA VVN LINYQDDAELA TRAIPELT KLLNDE
DQVVVNKA AVMVHQLSKKEASRHAIMRSPQM VS AIVRTMQNTNDVETARCTAG
15 TLHNLSHHREGLLAIFKSGGIPALVKMLGSPVDSVLFYAITTLHNLLLHQEGAKMA
VRLAGGLQKMVALLNKTNVKFLAITTDCLQILAYGNQESKLILASGGPQALVNIM
RTYTYEKLLWTTSRVLKVLSVCSSNKPAIVEAGGMQALGLHLDPSQRLVQNCL
WTLRNLSDAATKQEGMEGLLGTQVQLLGSDDINVTCAGILSNLTNNYKNKM
20 MVCQVGGIEALVRTVLRAGDREDITEPAICALRHLTSRHQEAEAMAQNAVRLHYGL
PVVVKLLHPPSHWPLIKATVGLIRNLALCPANHAPLREQGAIPRLVQLLVRAHQDT
QRRTSMGGTQQFVEGVRMEEIVEGCTGALHILARDVHN RIVIRGLNTIPLFVQLL
YSPIENIQRVAAGVLCELAQDKEAAEAEIAEGATAPL TELLHSRNEG V ATYAAAVL
FRMSEDKPQDYKKRLSVELTSSLFRTEPM AWN NETADLGLDIGAQGEPLGYRQDDP
25 SYRSFHSGGYQDALGMDPMMEHEMGGHHPGADYPVDGLPDLGHAQDLMMDGL
PPGDSNQLAWFDTDL

SEQ ID No: 47 (CtnnA1)

MTAVHAGNINFKWDPKSLEIRTLAVERLLEPLVTQVTTLVNTNSKGPSNKKRGRS
KKAHVLAASVEQATENFLEKGDKIAKESQFLKEELVVAVEDVRKQGDLMKAAAG
30 EFADDPCSSVKRGNMVRAAPALLSAVTRLLILADMADVYKLLVQLKVVEDGILKL
RNAGNEQDLGNQYKALKPEVDKLNIMA KRRQELKDVGRDQMAAARGILQSN
VPILYTASQACLQHPDVAAYKANRDLIYKQLQQAVTGISNAAQATASDDASQHQ

GGGGELAYALNNFDKQIIVDPLSFSEERFRPSLEERLESIISGAALMADSSCTRDD
RRERIVAECKNAVRQACRTCVSEYMGNAGRKERSDALNSAIDKMTKKTRDLRQL
RKAAMDHVSDSFLETNVPLLVLIEAAKNGNEKEVKEYAQVFREHANKLIEVANLA
CSISNNEEGVKLVRMSASQLEAGCPQVINAATWALAPKPQSKLAQENMDLFKEQ
5 WEKQVRVLTDAVDDITSIDDFLAVSENHILEDVNKCVIALQEKDVGLDRTAGAI
RGRAARVIHVVTSEMDNYEPGVYTEKVLEATKLLSNTVMPRFTEQVEAAVEALSS
DPAQPMDENEFIDASRLVYDGDIRKAVLMIRTPEELDDSDFETEDFDVRSETSVQ
TEDDQLIAGQSARAIMAQLPQEQQKAKIREQVASFQEEKSKLDAEVSKWDDSGNDII
VLAKQMCMMEMTDFTRGKGPLKNTSDVISAACKIAEAGSRMDKLGRRTIRDHC
10 PDSACKQDLLAYLQRIALYCHQLNICSKVKAEVQNLGGELVVSGNCDCGALQGL
KGWPPPLCLATHWVDSAMSLIQAAKNLMNAVQTVKASYVASTKYQKSQGMAS
LNLPAVSMKMKAPEKKPLVKREKQDETQTKIKRASQKKHVNPVQALSEFKAMDS
I

15 SEQ ID No: 48 (CtnnA2)

MTSATSPIILKWDPKSLEIRTLTVERLLEPLVTQVTTLVNTSNKGPSGKKKGRSKKA
HVLAASVEQATQNFLEKGEQIAKESQDLKEELVAAVEDVRKQGETMRIASSEFAD
DPCSSVKRGTMVRAARALLSAVTRLLILADMADVMRLLSHLKIVEEALEAVKNAT
NEQDLANRFKEFGKKMVKLNYVAARRQRELKDPHCRDEMAAARGALKKNATM
20 LYTASQAFLRHPDVAATRANRDYVFQVQEAIAGISNAAQATSPTEAKGHTGIG
ELAAALNEFDNKIILDPMTFSEARFRPSLEERLESIISGAALMADSSCTRDDRRERIV
AECNAVRQALQDLLSEYMNNTGRKEGDPLNIAIDKMTKKTRDLRQLRKAVM
DHISDSFLETNVPLLVLIEAAKSGNEKEVKEYAQVFREHANKLVEVANLACISIN
EEGVKLVRMAATQIDSLCPQVINAALTLAARPQSKVAQDNMDVFKDQWEKQVR
25 VLTEAVDDITSVDDFLSVSENHILEDVNKCVIALQEGDVDTLDRTAGAIRGRAARV
IHINAEMENYEAGVYTEKVLEATKLLSETVMPRFAEQVEVAIEALSANVPQPFE
NEFIDASRLVYDGVRDIRKAVLMIRTPEELEDDSDFEQEDYDVRRGTSVQTEDDQL
IAQQSARAIMAQLPQEKKAKIAEQQVEIFHQEKSCLDAEVAKWDDSGNDIIVLAKQ
MCMIMMEMTDFTRGKGPLKNTSDVINAACKIAEAGSRMDKLARA VADQCPDSA
30 CKQDLLAYLQRIALYCHQLNICSKVKAEVQNLGGELIVSGTGVQSTFTFYEVDCD
VIDGGRASQLSTHLPTCAEGAPIGSGSSDSSMLDSATSLIQAAKNLMNAVVLTVKA

SYVASTKYQKVYGTAAVNSPVVSWKMKAPEKKPLVKREKPEEFQTRVRRGSQK
KHISPVQALSEFKAMDSF

SEQ ID No: 49 (CtnnD1)

5 MDDSEVESTASILASVKEQEAQFEKLTRALEEERRHVS AQLER VRVSPQDANPLM
ANGTLTRRHQNQGRFVGADLERQKFSDLKLNGPQDHSHLLYSTIPRMQEPMQIVE
TYTEEDPEGAMSVVSVETSDDGTRRTETTVKKVVKTVTTRTVQPVAMGPDGLP
VDASSVSNNYIQLGRDFRKNGNGPGPYVGQAGTATLPRNFHYPPDGYSRHYE
DGYPGGSDNYGSLSRVTRIEERYRPSMEGYRAPSQRDVYGPQPQVRVGGSSVDLH
10 RFHPEPYGLEDDQRSMGYDDLDYGMMSDYGTARRTGTPSDPRLRSYEDMIGE
EVPSDQYYWAPLAQHERGSLASLDLSRKGGPPPNWRQPELPEVIAMLGFRLDAV
KSNAAAYLQHLCYRNDKVKTDRVKLKGIPVLVGLLDHPKKEVHLGACGALKNIS
FGRDQDNKIAIKNCDGVPALVRLRKARDMDLTEVITGTLWNLSSHDSIKMEIVD
HALHALTDEVIIPHSGWEREPNEDCKPRHIEWESVLTNTAGCLRVNVSSERSEARRK
15 LRECDGLVDALIFIVQAEIGQKDSDSKLVENCVCLLRNLSYQVHREIPQAERYQEA
APNVANNTGPHAASCFGAKKGKGKKPIEDPANDTVDFPKRTSPARGYELLFQPEV
VRIYISLLKESKTPAILEASAGAIQNLCAGRWTYGRYIRSLRQEKAISAIADLLTN
EHERVVKAASGALRNLAVDARNKELIGKHAIPNLVKNLPGQQNSSWNFSEDTV
SILNTINEVIAENLEAKKLRETQGIEKLVLINKSGNRSEKEVRAAALVLQTIWGYK
20 ELRKPLEKEGWKKSDFQVNLLNASRSQSSHYSYDDSTLPLIDRNQKSDKKPDREEIQ
MSNMGSNTKSLDNNYSTPNERGDHNRTLDRSGDLGDMEPPLKGTTPLMQDEGQES
LEEELDVVLVLDDEGGQVSYPSMQKI

SEQ ID No: 50 (NCadh)

25 MCRIAGALRTLLPLLLALLQASVEASGEIALCKTGFPEDVYSAVLSKD VHEGQPLL
NVKFSNCNGKRKVQYESSEPADFKVDEDGMVYAVRSFPLSSEHAKFLIYAQDKET
QEKWQVAVKLSLKPTLTEESVKESEAEEIVFPRQFSKHSGLQRQKRDWVIPPIN
LPENSRGPFQELVRIRSDRKNLRLYSVTGPGADQPPGTGIFIINPISGQLSVTKPLD
REQIARFHLRAHAVDINGNQVENPIDIVINVIDMNDNRPEFLHQVWNGTVPEGSKP
30 GTYVMTVTAIDADDPNALNGMLRYRIVSQAPSTPSNMFTINNETGDIITVAAGLD
REKVQQYTLIIQATDMEGNPTYGLSNTATAVITVTDVNDNPPEFTAMTFYGEVPEN
RVDIIVANLTVTDKDQPHTPAWNAVYRISGGDPTGRFAIQTDPNSNDGLVTVVKPI

DFETNRMFVLTVAEENQVPLAKGIQHPPQSTATSVTVIDVNENPYFAPNPKIIRQ
EEGLHAGTMLTTFTAQDPDRYMQQNIRYTKLSDPANWLKIDPVNGQITIAVLDR
ESPNVKNNIYNATFLASDNGIPPMSGTGLQIYLLDINDNAPQVLPQEAETCETPDP
NSINITALDYDIDPNAGPFAFDLPLSPVTIKRNWTITRLNGDFAQLNLKIKFLEAGIY
5 EVPIITDSGNPPKSNISILRVKVCQCDNSNGDCTDVDRIVGAGLGTGAIIAILLCIILLI
LVLMFVVWMKRRDKERQAKQLLIDPEDDVRDNILKYDEEGGGEEDQDYDLSQLQ
QPDTEPDAIKPVGIRRMDERPIHAEPQYPVRSAAHPGDIGDFINEGLKAADNDPT
APPYDSLLVFDYEGSGSTAGSLSSLNSSSSGEQDYDYLNDWGPRFKKLADMYGG
GDD

10

SEQ ID No:51 (Reelin)

MERSGWARQTFLALLLGATLRARAAGYYPRFSPFFLCTHHGELEGDGEQGEV
LISLHIAGNPTYYVPGQEYHVTISTSTFFDGLLVTGLYTSTSVCASQSIGGSSAFGFG
IMSDHQFGNQFMCSVVASHVSHLPTTNLSFIWIAPPAGTCVNFMATATHRGQVIF
15 KDALAQQLCEQGAPTDVTVPHLAEIHSDSIIILRDDFDSYHQLQLNPNTWECNNC
ETGEQCGAIMHGNAVTFCEPYGPRELITTGLNTTASVLQFSIGSGSCRFSYSDPSII
VLYAKNNSADWIQLEKIRAPSNTIIHILYLPEDAKGENVQFWKQENLRVGEVY
EACWALDNILJNSAHRQVVLEDSDLPVDTGNWLFFPGATVKHSCQSDGNSIYFHG
NEGSEFNFATTRDVLSTEDIQEIQWSEEFESQPTGWDVLGAIGTECGTIESGLSM
20 VFLKDGERKLCTPSMDTTGYGNLRFYFVMGGICDPGNSHENDIILYAKIEGRKEHI
TLDTLSYSSYKVPSLVSVVINPELQTPATKFCLRQKNHQGHNRNVWAVDFFHVLP
VLPSTM SHMIQFSINLGCUTHQPGNSVSLEFSTNHGRWSLLHTECLPEICAGPHLP
HSTVYSSENYSGWNRITIPLPNAALTRNTRIRWRQTGPILGNMWAIIDNVYIGPSCL
KFCSGRGQCTRHGCKCDPGFSGPACEMASQTFPMFISESGSSRLSSYHNFYSIRGA
25 EVSGCGVLASGKALVFNKEGRRQLITSFLDSSQSRFLQFTLRLGSKSVLSTCRAPD
QPGEGVLLHYSYDNGITWKLLEHYSYLSYHEPRIISVELPGDAKQFGIQFRWWQPY
HSSQREDVWAIDEIIMTSVLFNSISLDFTNLVEVTQSLGFYLGNVQPYCGHDWTL
FTGDSKLASSMRYVETQSMQIGASYMIQFSLVMCGQKYTPHMDNQVKLEYSTN
HGLTWHLVQEECLPSMPSCQEFTSASIYHASEFTQWRRVIVLLPQKTWSSATRFR
30 WSQSYYTAQDEWALDSIYIGQQCPNMCSGHGSCDHGICRCDDQGYQGTECHPEAA
LPSTIMSDFENQNGWESDWQEIGGEIVKPEQGCGVISSGSSLYFSKAGKRQLVSW
DLDTSWVDFVQFYIQIGGESASCNKPDSREEGVLLQYSNNGGIQWHLAEMYFSD

FSKPRFVYLELPAAAKTPCTRFRWWQPVFSGEDYDQWAVDDIILSEKQKQIIPVIN
PTLPQNFYEKPAFDYPMNQMSVWLMLANEQMVKNETFCAATPSAMIFGKSDGDR
FAVTRDLTLKPGYVLQFKLNIGCANQFSSTAPVLLQYSHDAGMSWFLVKEGCYPA
SAGKGCEGNSRELSEPTMYHTGDFEEWTRITIVIPRSLASSKTRFRWIQESSSQKNV
5 PPFGLDGVIYISEP CPSYCSGHGDCISGVCFCDLGYTAAQGTCVSNVPNHNEMFDRF
EGKLSPLWYKITGAQVGTGCGTLNDGKSLYFNGPGKREARTVPLDTRNIRLVQFYI
QIGSKTSGITCIKPRTRNEGLIVQYSNDNGILWHLLRELDMSFLEPQIISIDLPQDAK
TPATAFRWWQPQHGKHSAQWALDDVLIGMNDSSQTGFQDKFDGSIDLQANWYRI
QGGQVDIDCLSMDTALIFTENIGKPRYAEWDFHVSASTFLQFEMSMGCSKPFNS
10 HSVQLQYSLNNGKDWHLVTEECVPPTIGCLHYTESSIYTSERFQNWKRITVYLPLS
TISPRTRFRWIQANYTVGADSWAIDNVVLASGCPWMCSGRGICAGRVCVCDRGFG
GPYCVPVVPLPSILKDDFNGNLHPDLWPEVYGAERGNLNGETIKSGTSLIFKGEGL
RMLISRDLDCTNTMYVQFSLRFLIAKSTPERSHSILLQFSISGGITWHLMDFYFPQTT
NILFINVPLPYTAQTNATRFRWLWQPYNNNGKKEEIWIVDDFIIDGNVNNPVMILLDT
15 FDFGPREDNWFFYPGGNIGLYCPYSSKGAPEEDSAMVFSNEVGEHSITTRDLNVN
ENTIIQFEINVGCSTDSSADPVRLEFSRDFGATWHLLLPLCYHSSSHVSSLCSTEHH
PSSTYYAGTMQGWRREVHFGKLHLCGSVRFRWYQGFYPAGSQPVTAIDNVYI
GPQCEEMCNGQGSCINGTKCICDPGYSGPTCKISTKNPDFLKDDFEGQLESDRFLL
MSGGKPSRKCGILSSGNLFFNEDGLRMLMTRDLDLSHARFVQFFMRLGCGKGVP
20 DPRSQPVLLQYSLNGGLWSLLQEFLFSNNSNVGRYIALEIPLKARSGSTRLRWWQ
PSENGHFYSPWVIDQILIGGNISGNTVLEDDFTTLDUSRKWLLHPGGTKMPVCGSTG
DALVFIEKASTRYVVSTDVAVNEDSFLQIDFAASCVTDSCYIAIELEYSDLGLSW
HPLVRDCLPTNVECSRYHLQRILVSDTFNWKTRITLPLPPYTRSQA TRFRWHQPAP
FDKQQTWAIDNVYIGDGCIDMCSGHGRCIQGNVCDEQWGGLYCDDPETSLPTQ
25 LKDNFNRAPSSQNWLTVNGGKLSTVCGAVASGMALHSGGCSRLLVTVDLNLTN
AEFIQFYFMYGCLITPNNRNQGVILLEYSVNGGITWNLLMEIFYDQYSKPGFVNILL
PPDAKEIATRFRWWQPRHDGLDQNDWAIDNVLISGSADQRTVMLDTFSSAPVPQH
ERSPADAGPGVRIAFDMFMEDKTSVNEHWFHDDCTVERFCDSPDGVMCGSHD
GREVYAVTHDLTPTEGWIMQFKISVGCKVSEKIAQNQIHVQYSTDFGVSWNYLVP
30 QCLPADPKCSGSVSQPSVFFPTKGWKRITYPLPESLVGNPVRFRFYQKYSDMQWAI
DNFYLGPGCLDNCRGHGDCLREQCICDPGYSGPNCYLHTLKTFLKERFDSEEIKP
DLWMSLEGGSTCTECGILAEDTALYFGGSTVRQA VTQDLDLRGAKFLQYWGRIGS

ENNMTSCHRPICRKEGVLLDYSTDGGITWTLLHEMDYQKYISVRHDYILLPEDALT
NTTRLRWQPFVISNGIVVSGVERAQWALDNILIGGAEINPSQLVDTFDDEGTSHE
ENWSFYPNAVRTAGFCGNPSFHLYWPNKKDKTHNALSSRELIQPGYMMQFKIV
VGCEATSCGDLHSVMLEYTKDARSDSWQLVQTQCLPSSNSIGCSPFQFHEATIYN
5 SVNSSSWKRITIQLPDHVSSSATQFRWIQKGEETEKQSWAIDHVYIGEACPKLCSG
HGYCTTGAICICDESFGQGDDCSVFSHDLPSYIKDNFESARVTEANWETIQGGVIGSG
CGQLAPYAHGDSLYFNGCQIRQAATKPLDLTRASKIMFVLQIGSMSQTDSCNSDLS
GPHAVDKAVLLQYSVNNGITWHVIAQHQPKDFTQAQRVSYNVPLEARMKGVLLR
WWQPRHNGTGHDQWALDHVEVVLVSTRKQNYMMNFSRQHGLRFYNRRRLSL
10 RRYP

SEQ ID No:52 (Sortilin-related receptor)

MATRSSRRESRLPFLFTLVALLPPGALCEVWTQRLHGGSAPLPQDRGFLVVQGDP
RELRLWARGDARGASRADEKPLRRKRSAAALQPEPIKVYGQVSLNDSHNQMVVH
15 WAGEKSNVIVALARDSLALARPKSSDVYVSYDYGKSFKKISDKLNFGLGNRSEAV
IAQFYHSPADNKRYIFADAYAQYLWITFDFCNTLQGFSIPFRAADLLLHSKASNLLL
GFDRSHPNKQLWKSDDFGQTWIMIQEHVKSFSWGIDPYDKPNTIYIERHEPSGYST
VFRSTDFFQSRENQEVLIEVRFQLRDKYMFAVKVHLLGSEQQSSVQLWVSFG
RKPMRAAQFVTRHPINEYYIADASEDQVFVCVSHSNNRTNLYISEAEGLKFSLSLE
20 NVLYYSPGGAGSDTLVRYFANEPEFADFHRVEGLQGVYIATLINGSMNEENMRSVI
TFDKGGTWEFLQAPAFTGYGEKINCELSQGCSLHLAQRLSQLLNQLRRMPILSKE
SAPGLIIATGSVGKNLASKTNVYISSLAGARWREALPGPHYYTWGDHGGIITAIQ
GMETNELKYSTNEGETWKTIFSEKPVFVYGLLTEPGEKSTVFTIFGSNKENVHSW
LILQVNATDALGVPCTENDYKLWSPSDERGNECLLGHKTVFKRRTPHATCFNGED
25 FDRPVVVSNCSTREDYECDFGFKMSEDLSLEVCPDPEFSGKSYSPPVPCPGST
YRRTRGYRKISGDTCSGGDVEARLEGELVPCPLAEENEFILEYAVRKSITYRYDLASG
ATEQLPLTGLRAAVALFDYEHNCLYWSDLALDVIQRLCLNGSTGQEVIINSGLET
VEALAFEPLSQLLYWVDAGFKKIEVANPDGDFRLTIVNSSVLDPRRALVLVPQEGV
MFWTDWGDLKPGIYRSNMDGSAAYHLVSEDVKWPNGISVDDQWYWTDAYLEC
30 IERITFSGQQRSVILDNLPHPYAIAVFKNIEYWDDWSQLSIFRASKYSGSQMEILAN
QLTGLMDMKIFYKGKNTGSNACVPRPCSLLCLPKANNSRSCRCPEDVSSVLPSG
DLMCDCPQGYQLKNNTCVKEENTCLRNQYRCNSNGNCINSIWWCDFNDCGDMS

DERNCPTICDLDTQFRCQESGTCIPLSYKCDLEDDCGDNSDESHCEMHQCRSDEY
 NCSSGMCIRSSWVCDGDNDCRDWSDEANCTAIYHTCEASFQCRNGHCIPQRWA
 CDGDTDCQDGSDEDPVNCEKKCNGFRCPNGTCIPSSKHCDGLRDCSDGSDEQHCE
 PLCTHFMDVCKNRQQCLFHSMVCDGIIQCRDGSDEAAFAGCSQDPEFHVCDE
 5 FGFQCQNGVCISLIWKCDGMDDCGDYSDEANCENPTEAPNCSR YFQFRCENGHCI
 PNRWKCDRENDGDSDEKDCGDSHLPSTPGPSTCLPNYYRCSSGTCVMDTW
 VCDGYRDCADGSDEEACPLLANTAASTPTQLGRCDRFEFECHQPKTCIPNWKRC
 DGHQDCQDGRDEANCPTHSTLTcmsREFQCEDGEACIVLSERCDGFLDCSDESDE
 KACSDELT VYKVQNLQWTADFSGDVTLTWMRPKKMP SASC VYNVYRVVGESI
 10 WKTL EHSNKTNTVLKVLKPDTTYQVKVQVQCLSKAHNTNDFVTLRTPEGLPDA
 PRNLQLSLPRAEAGVIVGHWAPPIHTHGLIREYIVEYSRSGSKMWASQRAASNFTEI
 KNLLVNTLYTVRVAAVTSRGIGNWSDSKSITTIKGKVIPPPDIHDSYGENYLSFTLT
 MESDIKVNGYVVNLFWAFDTHKQERRTLNFRGSILSHKVGNLTAHTSYEISAWAK
 TDLGDSPLAFEHVMTRGVRPPAPSLKAKAINQTA VECTWTGPRNVVYGYIFYATSF
 15 LDLYRNPKSLTSLHNKTVIVSKDEQYLFLVRVVVPYQGPSSDYVVVKMIPDSRLP
 PRHLHVVVHTGKTSVVIKWESPYDSPDQDLLYAIAVKDLIRKTDRSYKVKSRNSTV
 EYTLNKLEPGGKYHIVQLGNMSKDSSIKITVSL SAPDALKIITENDHVLLFWKSL
 ALKEKHFNESRGYIEIHMFDSAMNTAYLGNTTDNFFKISNLKM GHNYTFTVQARC
 LFGNQICGEPAILYDELSGADASATQAARSTDVA AVVVPILFLILLSLGVGVFAIL
 20 YTKHRRRLQSSFTA FANS HYSSRLGSAIFSSGDDLGEDDEDAPMITGFSDDVPMVIA

SEQ ID No:53 (18 kDa microsomal signal peptidase subunit)

MLSLDFLDDVRRMNKRQLYYQVLNFGMIVSSALMIWKGLMVITGSESPIVVLSG
 SMEPAFHRGDLLFLTNRVEDPIRVGEIVVFRIEGREIPIVHRVLKIHEKQNGHIKFLT
 25 KGDNNAVDDRGGLYKQGQHWLEKKDVVGRARGFVPYIGIVTILMNDYPKFKYAV
 LFLLGLFVLVHRE

SEQ ID No: 54 (CLGN)

HLPKQQRGGVCLGVKS KWQPKLRTGREKIINMHFQAFWLCLGLL FISINA EFMDD
 30 DVETEDFEENSEEIDVNESELSSEIKYKTPQPIGEVYFAETFDSGRLAGWVLSKAKK
 DDMDEEISIYDGRWEIEELKENQVPGDRGLVLKSRAKHAIASAVLAKPFIFADKPLI
 VQYEVNFQDGIDCGGAYIKLLADTDDLILENFYDKTSYIIMFGPDKGEDYKLHIF

RHKHPKTGVFEEKHAKPPDVLDLKKFTDRKTHLYTLVMNPDDTVEVLVDQTVVN
KGSLLVEDVVPPIKPPKEIEDPNDKKPEEWDERAKIPDPSAVKPEDWDESEPAQIEDS
SVVKPAGWLDDEPKFIPDPNAEKPDDWNEDTDGEWEAPQILNPACRIGCGEWKPP
MIDNPKYKGVWRPPLVDNPNYQGIWSPRKIPNPDYFEDDHPFLLTSFSALGLELWS
5 MTSDIYFDNFIIICSEKEVADHWAADGWRWKIMIANANKPGVLKQLMAAAEGHP
WLWLIYLVTAGVPIALITSFCWPRKVKKKHKDTEYKKTDCIPQTGVLEQEEKEE
KAALEKPMDLEEEKKQNDGEMLEKEEESEPEEKSEEEIEEGQEESNQSNKSGSED
EMKEADESTGSGDGPIKSVRKRRVRKD

10 SEQ ID No:55 (ECSIT)

MSWVQATLLARGLCRAWGGTCGAALTTSISQVPRRLPRGLHCSAAAHSSEQSL
VPSPPEPRQRPTKALVPFEDLFGQAPGERDKASFLQTVQKFAEHSVRKRGHIDFIY
LALRKMRGYVERDLAVYNQLLNIFPKEVFRPRNIIQRIFVHYPRQECGIAVLEQ
MENHGVMMPNKETEFLLIQIFGRKSYPMLKLVRLKLWFPRFMNVNPFPVPRDLPQD
15 PVELAMFGLRHMEPDLSARVTIYQVPLPKDSTGAADPPQPHIVGIQSPDQQALAR
HNPARPVFVEGPFLWLRNKCYYHILRADLLPPEEREVEETPEEWNLYYPMQLD
LEYVRSGWDNYEFDINEVEEGPVFAMCMAGAHDQATMAKWIQGLQETNPTLAQI
PVVFRLAGSTRELQTSSAGLEEPPLPEDHQEEEDNLQRQQQGQS

20 SEQ ID No:56 (FLJ20342)

MPSASCDTLLDDIEDIVSQEDSKPQDRHFVRKDVPKVRRRNTQKYLQEEENSPPS
DSTIPGIQKIWIRTWGCSHNNSDGEYMAQLAAYGYKITENASDADLWLLNSCTV
KNPAEDHFRNSIKKAQEENKKIVLAGCVPQAQPRQDYLKGLSIIGVQQIDRVVEVV
EETIKGHSVRLLGQKKDNGRRLGGARLDLPKIRKNPLIEIISISTGCLNACTYCKTK
25 HARGNLASYPIDELVDRAKQSFQEGVCEIWLTSEDTGAYGRDIGTNLPTLLWKLV
EVIPEGAMRLGMLMTNPPYILEHLEEMAKILNHPRVY AFLHIPVQSASDSVLMEMKR
EYCVADFKRVVDFLKEKVPGITIATDIICGFPGETDQDFQETVKLVEEYKFPRLF
QFYPRPGTPAAKMEQVPAQVKKQRTKDLRNFHSYSPYDHKIGERQQVLVTEESF
DSKFYVAHNQFYEQVLVPKNPAFMGKMVEVDIYESGKHFMKGQPVSDAKVYTPS
30 ISKPLAKGEVSGLTKDFRNGLGNQLSSGSHTSAASQCDSSSRMVLPMRHLHQDC
ALRMSVGLALLGLLFAFFVKVYN

SEQ ID No:57 (KIAA0090)

MAAEWASRFWLWATLLIPAAA VYEDQVGKFDWRQQYVGKVKFASLEFSPGSKK
LVVATEKNVIAALNSRTGEILWRHVDKGTAEGAVDAMLLHGQDVITVSNGGRIM

RSWETNIGGLNWEITLDSGSFQALGLVGLQESVRYIAVLKKTTLALHHLSSGHLK

5 WVEHLPESDSIHYQMVYSYGSVVWALGVVVFHVNVKFNVEDGEIVQQVRVS
TPWLQHLSGACGVVDEAVLVCPDPSSRSLQTLALETEWELRQIPLQSLDEFSGSF

QPRVLPTQPNPVDASRAQFFLHLSPSHYALLQYHYGTLSSLKNFPQTALVSFATTG
EKTVAAVMACRNEVQKSSSEDGSMGSFSEKSSSKDSLACFNQTYTINLYLVEVG

RRLLDTTTFSLEQSGTRPERLYIQVFLKKDDSVGYRALVQTEDHLLLFLQQLAGK

10 VVLWSREESLAEVVCLEMVDLPLTGAQAELEGEFGKKADGLLGMFLKRLSSQLIL
LQAWTSHLWKMFYDARKPRSQIKNEINIDTLARDEFNLQKMMVMVTASGKLFGI
ESSSGTILWKQYLPNVKPDSSFKLMVQRTTAHFPHPPQCTLLVKDKESGMSSLYVF
NPIFGKWSQVAPPVLKRPILQSILLPVMDQDYAKVLLLIDDEYKVTAFPATRNVLR

QLHELAPSIFFYLVDAEQGRLCGYRLKDLTTELSEWELTIPPEVQRIVKVKGKRSSE
15 HVHSQGRVMGDRSVLYKSLNPNLLAVVTESTDAHHERTFIGIFLIDGVTGRIIHSSV
QKKAKGPVHVSENWVYQYWNTKARRNEFTVLELYEGTEQYNATAFSSLDRP
QLPQLQQSYIFPSSISAMEATITERGITSRHLLIGLPSGAILSLPKALLDPRRPEIPTE
QSREENLIPYSPDVQIHAERFINYNQTVSRMRGIYTAPSGLESTCLVVAYGLDIYQT
RVYPSKQFDVLKDDYDYLISSVLFGLVFATMITKRLAQVKLLNRAWR

20

SEQ ID No:58 (NICE-3)

MASGSNWLSGVNVVLVMA YGSLVFVLLFIFVKRQIMRFAMKSRRGPHVPVGHNA
PKDLKEEIDIRLSRVQDIKYEPQLLADDARLLQLETQGNQSCNYLYRMKALDAI

RTSEIPFHSEGRHPRSLMGKNFRSYLLDLRNTSTPKGVRKALIDTLLDGYETARY

25 GTGVFGQNEYLRYQEALSELATAVKARIGSSQRHHQSAAKDLTQSPEVSPPTIQVT
YLPSSQSKSKRAKHFLELKSFKDNYNTLESTL

SEQ ID No: 59 (CK2B)

MSSSEEVSWISWFCGLRGNEFFCEVDEDYIQDKFNLTGLNEQVPHYRQALDMILD

30 LEPDEELEDNPQNQSDLIEQAAEMLYGLIHARYILTNRGIAQMЛЕKYQQGDFGYCPR
VYCENQPMPLPIGLSDIPGEAMVKLYCPKCMDVYTPKSSRHHHTDGAYFGTGFPH
MLFMVHPEYRPKR PANQFVPR LYGFKIH PMA YQLQLQAASNFKSPVKTIR

SEQ ID No: 60 (PTP LOC114971)

5 MAATALLEAGLARVLFYPTLLYTLFRGKVPGRAHRDWYHRIDPTVLLGALPLRSL
TRQLVQDENVRGVITMNEEYETRFLCNSSQEWKRLGVEQLRLSTVDMTGIPTLDN
LQKGVQFALKYQSLGQCVYVHCKAGRSRSATMVAAYLIQVHKWSPEEAVRRAIK
IRSYIHIRPGQLDVLKEFHQKQITARATKDGTFVISKT

SEQ ID No: 61 (STT3)

10 MTKFGFLRLSYEKQDTLLKLLILSMAAVLSFSTRLFAVLRFESVIHEFDPYFNYRTT
RFLAEEGFYKFHNWFDDRAWYPLGRIIGGTIYPGLMITSAAIYHVLHFFHITIDIRN
VCVFLAPLFSSFTTIVTYHLTKELDAGAGLLAAAMIAAVPGYISRSVAGSYDNEG
IAIFCMLLTYYMWIKAVKTGSICWAACALAYFYMVSSWGGYVFLINLIPHLV
LMLTGRFSHRIYVAYCTVYCLGTILSMQISFVGQPVLSSEHMAAFGVFGLCQIHA
FVDYLRSKLNPQQFEVLFRSVISLVGFVLLTVGALLMLTGKISPWTGRFYSLLDPS
15 YAKNNIPIIASVSEHQPTTWSSYYFDLQLLVFMFPVGLYYCFSNLSDARIFIIMYGV
TSMYFSAVMVRLMLVLAPVMCILSGIGVSQVLSTYMKNLDISRPDKSKKKQDST
YPIKNEVASGMILVMAFFLITYTFHSTWVTSEAYSSPSIVLSARGGDGSRIIFDDFRE
AYYWLRHNTPEDAKVMSWWDYGYQITAMANRTILVDNNTWNNTHISRVGQAM
ASTEEKAYEIMRELDVSYVLVIFGGLTGYSSDDINKFLWMVRIGGSTDGKHIKEN
20 DYYTPTGEFRVDREGSPVLLNCLMYKMCYYRGQVYTEAKRPPGFDRVRNAEIG
NKDFELDVLEEAYTTEHWLVRITYKVKDLDNRGLSRT

SEQ ID No: 62 (NicAChRa3)

25 MGSGPLSLPLALSPPRLLLLLSSLLPVARASEAEHRLFERLFEDYNEIIRPVANVSD
PVIIHFEVSMSQLVKVDEVNQIMETNLWLKQIWNDYKLKWNPSDYGGAEFMRVP
AQKIWKPDIVLYNNAVGDFQVDDKTKALLKYTGEVTWIPPAIFKSSCKIDVTYFPF
DYQNCTMKFGWSYDKAKIDLVLIGSSMNLKDYWESGEWAIIKAPGYKHDIKYN
CCEEIYPDITYSLYIRRLPLFYTIINLIIPCLLISFLTVLFYLPSCDCGEKVTLCISVLLSL
TVFLLVITETIPSTSLVIPLIGEYLLFTMIFVTLSIVTVFVLNVHYRTPTTHTMPSWV
30 KTVFLNLLPRVMFMTRPTSNEGNAQKPRPLYGAELSNLNCFSRAESKGCKEGYPC
QDGMCGYCHHRRIKISNFSANLTRSSSESVDAVLSALSPEIKEAIQSVKYIAEN
MKAQNEAKEEQKAQEIQQLKRKEKSTETSDQEPGL

SEQ ID No: 63 (SLC4A2)

MSSAPRRPAKGADSFCPEPESLPGPGFPEQEEDELHRTLGVERFEEILQEAGSR
GGEEPGRSYGEEDFEYHRQSSHIIHHPLSTHLPPDARRKTPQGPGRKPRRRPGAS
5 PTGETPTIEEGEEDEDEASEAEGARALTQPSPVSTPSSVQFFLREDDSADRKAERTS
PSSPAPLPHQEATPRASKGAQAGTQVEEAEAEAVAVASGTAGGDDGGASGRPLPK
AQPGRHSYNLQERRIGSMTGAEQALLPRVPTDEIEAQTLATADLDLMKSHRFED
VPGVRRHLVRKNAKGSTQSGREGREPGPTPRARPRAPHKPHEVFVELNELLDDKN
QEPQWRETARWIKFEEDVEEETERWGKPHVASLSFRSILLELRRTLAHGAVLLDD
10 QQTLPGVVAHQVVEQMVISDQIKAEDRANVLRALLKHSHPSDEKDFSFPRNISAGS
LGSLLGHHHGQGAESDPHVTEPLMGGVPETRLEVERERDVPPPAPPAGITRSKSKH
ELKLLEKIPENAEATVVLVGCVEFLSRPTMAFVRLREA VELDAVLEVPPVRFLLFL
LLGPSSANMDYHEIGRSISTLMSDKQFHEAAYLADEREDLLTAINAFLDCSVVLPP
SEVQGEELLRSVAHFQRQMLKKREEQGRLLPTGAGLEPKSAQDKALLQMVEAAG
15 AAEDDPLRRTGRPFGLIRDVRRRYPHYLSDFRDALDPQCLAAVIFIYFAALSPAIT
FGGLLGEKTQDLIGVSELIMSTALQGVVFCLLGAQPLLVIGFSGPLLVFEEAFFSFCS
SNHLEYLVGRVWIGFWLVFLALLMVALEGSQLVRFVSRFTQEIFAFLISLIFIYETFY
KLVKIFQEHLHGCSASNSEVDGGENMTWAGARPTLPGPNRSLAGQSGQGKPR
GQPNТАLLSLVLMAGTFFIAFFLRKFNSRFFPGRIRR VIGDFGVPIAILIMVLVDYS
20 IEDTYTQKLSVPSGFSVTAPEKRGWVINPLGEKSPFPVWMMVASLLPAILVFLIFM
ETQITTLIISKKERMLQKGSGFHLDLLIVAMGGICALFGLPWLAATVRSVTHAN
ALTVMMSKAVAPGDKPKIQEVKEQRTGLLVALLVGLSIVIGDLLRQIPLAVLFGIFL
YMGVTSNGIQFYERLHLLLMPPKHHPDVTYVKKVRTLMHLFTALQLLCLALL
WAVMSTAASLAFFPFILETVPLRMVVLTRIFTDREMKCLDANEAEPVFDEREGVDE
25 YNEMPPMPV

SEQ ID No: 64 (HIFPH3/EGLN3)

MGKGGNQGEGAAEREVSVPTFSWEEIQKHNLRDRLVIDRKVYNITKWSIQHP
GGQRVIGHYAGEDATDAFRAFHPDLEFGKFLKPLLIGELAPEEPSQDHGKNSKIT
30 EDFRALRKTAEDMNLFKTNHVFFLLLHIALESIAWFTVFYFGNGWIPTLITAFV
LATSQAQAGWLQHDYGHLSVYRKPKWNHLVHKFVIGHLKGASANWWNHRHFQ
HHAKPNIFHKDPDVNMLHVFVLGEWQPIEYGKKKLKLYLPYNHQHEYFFLIGPPLI

PMYFQYQIIMTMIVHKNWVDLAWAVSYYIRFFITYIPFYGILGALLFLNFIRFLESH
WFVWVTQMNHTVMEIDQEAYRDWFSSQLTATCNVEQSFFNDWFSGHNFQIEHH
LFPTMPRHNLHKIAPLVKSLSAKHGIEYQEKPILLRALLDIIRSLKKSGKLWLDAYL
HK

5

SEQ ID No:65 (STX10)

MSLEDPPFVVRGEVQKAVNTARGLYQRWCELLQESAAVGREELDWTTNELRNGL
RSIEWDLEDLEETIGIVEANPGKFKLPAGDLQERKVFVERMREAQEMKDHMVSP
TAVAFLERNRREILAGKPAAQKSPSDLDAVASATSRYIEEQQATQQLIMDEQDQ
10 QLEMVSGSIQVLKHMGRVGEELDEQGIMLDAFAQEMDHTQSRMDGVLRKLAK
VSHMTSDRRQWCIAAVLVGVLLLVLILLFSL

SEQ ID No:66 (Presenilin-2)

MLTFMASDSEEEVCDERTSLMSAESPTPRSCQEGRQGPEDGENTAQWRSQENEED
15 GEEDPDRYVCSGVPGRPPGLEEELTLKYGAKHIVMLFVPVLCMTVVVATIKSVRF
YTEKNGQLIYTPFTEDTPSVGQRLNSVLNTLIMISVIVVMTIFLVVLYKYRCYKFI
HGWLIMSSLMLLFLFTYIYLGEVLKTYNVAMDYPTLLLTVWNFGAVGMVCIHWK
GPLVLQQAYLIMISALMALVFIKYLPEWSAWVILGAISVYDLVAVLCPKGPLRML
VETAQERNEPIFPALIYSSAMVWTVGMAKLDPSSQGALQLPYDPEMEEDSYDSFG
20 EPSYPEVFEPPLTGYPGEELEEEEERGVKLGLGDFIFYSVLVGKAAATGSGDWNTT
LACFVAILIGLCLTLLLLAVFKKALPALPISITFGLIFYFSTDNLVRPFMDTLASHQL
YI

SEQ ID No:67 (Wolframin)

25 MDSNTAPLGSCPQPPPAPQPQARSRLNATASLEQERSERPRAPGPQAGPGPGVRD
AAAPAEQQAQHTRSRRERADGTGPTKGDMIEIPFEEVLERAKAGDPKAQTEVGKHY
LQLAGDTDEELNSCTAVDWLVLAAKQGRREAVKLLRRCLADRRGITSENEREVR
QLSSETDLERA VRKAALV MYWKLNPKKKKQVAVAELLENVGQVNEHDGGAQPG
PVPKSLQKQRRMLERLVSSESKNYIALDDFVEITKKYAKGVIPSSLFLQDDDEDDE
30 LAGKSPEDLPLRLKVVKYPLHAIMEIKEYLIDMASRAGMHWLSTIIPTHHINALIFF
FIISNLTIDFFAFFIPLVIFYLSFISMVICTLKFQDSKAWENFRTLTDLLRFEPNLDV
EQAEVNFGWNHLEPYAHFLLSVFFVIFSFPIASKDCIPCSLEAVITGFFTTSYLSLS

THAEPYTRRALATEVTAGLLSLLPSMPLNWPYLKVLGQTFITVPVGHVVNVSV
PCLLYVYLLYLFFRMAQLRNFKGTYCYLVPYLVCFMWCELSVVILLESTGLGLR
ASIGYFLFLFALPILVAGLALVGVLQFARWFTSLELTKIAVTAVCSVPLLRWWT
KASFSVVGVMVKSLTRSSMVKLILVWLTAIVLFCWFYVYRSEGMKVYNSTLTWQQ
5 YGALCGPRAWKETNMARTQILCSHLEGHRVTWTGRFKYVRVTIDNSAESAINM
LPFFIGDWMRCLYGEAYPACSPGNTSTAEEELCRLKLLAKHPCHIKKFDRYKFEIT
VGMPFSSGADGSRSEEDDVTKDIVL��SEFKSVLLSLRQGSLIEFSTILEGRLGSK
WPVFELKAISCLNCMAQLSPTRRHVKIEHDWRSTVHGAVKFAFDFFFFPFLSAA

10 SEQ ID No:68 (BACE1)

MAQALPWLLLWMGAGVLPKAHGTQHGIRLPLRSGLGGAPLGLRLPRETDEEPEEPG
RRGSFVEMVDNLRGKSGQGYVEMTVGSPPQTLNILVDTGSSNFAVGAAPHFLH
RYYQRQLSSTYRDLRKGVYVPTYQGKWEGETGDLVSIPHGPNTVRANIAAITE
SDKFFINGSNWEGLGLAYAEIARPDDSLEPFFDSLVKQTHVPNLFSLQLCGAGFPL
15 NQSEVLASVGGSMIIGGIDHSLYTGSLWYTPIRREWYYEVIIVRVEINGQDLKMD
KEYNYDKSIVDSGTTNLRLPKKVFEAAVKSIAASSTEKFPDGFWLGEQLVCWQA
GTTPNIFPVISLYLMGEVTNQSFRITILPQQYLRPVEDVATSQDDCYKFAISQSST
GTVMGAVIMEGFYVVFDRARKRIGFAVSACHVHDEFRTAAVEGPFVTLDMEDCG
YNIPQTDESTLMTIAYVMAAICALFMLPLCLMVCQWRCLRCLRQQHDDFADDISL

20 LK

SEQ ID No:69 (FLJ30668)

MELHYLAKKSQNQADLCDARDWSSRGLPGDQADTAATRAALCCQKQCACSTPRAT
EMEGSKLSSSPASPSSLQNSTLQPDAPPGLLHSGNNQITAERKVCNCCSQELETS
25 FTYVDKNINLEQRNRSSPSAKGHNHPGELGWENPNEWSQEAAISLISEEEDDSSE
ATSSGKSIDYGFISAILFLVTGILLVIISYTVPREVTDPNTVAAREMERLEKESARLG
AHLDRCVIAGLCLLTLGGVILSCLMMMSMWKGELYRRNRFASSKESAKLYGSFNF
RMKTSTNENTLELSLVEEDALA VQS

30 SEQ ID No:70 (BSCv protein)

MSEADGLRQRRPLRPQVVTDDDGQAPEAKDGSSFSGRVFRVTFLMLAVSLTVPLL
GAMMLLESPIDPQPLSFKEPPLLGVLPNTKLRQAERLFENQLVGPESIAHGDVM

FTGTADGRVVKLENGEIETIARFGSGPCKTRDDEPVCCRPLGIRAGPNTLFVADA
YKGLFEVNPWKREVKLLLSETPIEGKNMSFVNDLTVTQDGRKIYFTDSSSKWQR
RDYLLLVMEGTDDGRLLEYDTVTREVKVLLDQLRFPNGVQLSPAEDFVLVAETT
MARIRR VYVSGLMKGGADLFVENMPGFPDNIRPSSSGGYWVGMSTIRPNPGFSML
5 DFLSERPWIKRMIFKLFSQETVMKFVPR YSLVLELSGAFRRSLHDPDGLVATYIS
EVHEHDGHL YLGSFRSPFLCRLSLQAV

SEQ ID No:71 (FLJ39249)

MAPRPLGPLVLALGAAAVLGSVLFILWKTYFGRGRERRWDRGEAWWGAEAAAR
10 LPEWDEWDPEDEEDEEPALEELEQREVLVLGLDGAGKSTFLRVLSGKPPLEGHIPT
WGFNSVRLPTKDFEVDLLEIGGSQNLRFYWKEVSEVDVLVFVVDSDARLRLPWA
RQELHKLLDKDPDLPVVVVANKQDLSEAMSMGELQRELGLQAIQNQREVFLAA
SIAPAGPTFEEPGTVHIWKLLLELLS

15 SEQ ID No:72 (Cgl-13)

MSFLIDSSIMITSQLFFFGFWLFFMRQLFKDYEIRQYVVQVIFSVTFAFSCTMFELII
FEILGVLNSSSRYFHWKMNLCVILLILVFMVPFYIGYFIVSNIRLLHKQRLLFSCLLW
LTFMYFFWKLGDPPILSPKHGILSIEQLISRVGVIGVTLMALLSGFGAVNCPYTYM
SYFLRNVTDTDILALERRLLQTMDMIISSKKRMAMARRTMFQKGEVHNKPSGF
20 GMIKSVTTSASGSENLTJLQQEVDALEELSRLQFLETADLYATKERIEYSKTFKGKY
FNFLGYFFSIYCVWKIFMATINTIVFDRVKGKTDPTVTRGIEITVNYLGIQFDVKFW
SFILVGIIVTSIRGLLITLTKFFYAISSSKSSNVIVLLAQIMGMYFVSSVLLIRMSMP
LEYRTIITEVLGELQFNFYHRWFDVIFLVSALSSILFLYLAHKQAPEKQMAP

25 SEQ ID No:73 (ITCH)

MSDSGSQLGSMGSLTMKSQLQITVISAKLKENKKNWFGPSPYVEVTVDGQSKKTE
KCNNTNSPKWKQPLTVIVTPVSKLHFRVWSHQTLKSDVLLGTAALDIYETLKSNN
MKLEEVVVTQLGGDKEPTETIGDLSICLDGLQLESEVVTNGETTCSENGVSLCLP
RLECNSAISAHCNLCLPGLSDSPISASRVAGFTGASQNDDGSRSKDETRVSTNGSD
30 DPEDAGAGENRRVSGNNSPSLSGGFKPSRPPRPSRPPPTPRPASVNGSPSATSE
SDGSSTGSLPPTNTNTNTSEGATSGLIPLTISGGSGPRPLNPVTQAPLPPGWEQRVD
QHGRVYYVDHVEKRTTWDRPEPLPPGWERRVDNMGRYYVDHFRTTTWQRPT

LESVRNYEQWQLQRSQLQGAMQQFNQRFIYGNQDLFATSQSKEFDPLGPLPPGWE
KRTDSNGRVYFVNHNTRITQWEDPRSQGQLNEKPLPEGWEMRFTVDGIPYFVDH
NRRTTYIDPRTGKSALDNGPQIAYVRDFKAKVQYFRFWCQQLAMPQHIKITVTR
KTLFEDSFQQIMSFSPQDLRRRLWVIFPGEEGLDYGGVAREWFFLLSHEVLPNPMYC
5 LFEYAGKDNYCLQINPASYINPDHLKYFRFIGRFIAMALFHGKFIDTGFSLPFYKRIL
NKPVGLKDLESIDPEFYNSLIWVKENNIECDLEMYFSVDKEILGEIKSHDLKPNNG
NILVTEENKEEYIRMVAEWRLSRGVEEQTQAFFEGFNEILPQQYLQYFDAKELEV
LCGMQEIDLNDWQRHAIYRHYARTSKQIMWFQFWKEIDNEKRMRLLQFVTGTC
RLPVGGFADLMGSNGPQKFCIEKVGKENWLPRSHTCFNRLLPQYKSYEQLKEKL
10 LFAIEETEGFGQE

SEQ ID No:74 (Casein kinase III beta chain)

MSSSEEVSWISWFCGLRGNEFFCEVDEDYIQDKFNLTGLNEQVPHYRQALDMILD
LEPDEELEDNPNQSDLIEQAAEMLYGLIHYARLTYILTNRGIAQMLEKYQQGDFGYCPR
15 VYCENQPMPIGLSDIPGEAMVKLYCPKCMDVYTPKSSRHHHTDGAYFGTGFPH
MLFMVHPEYRPKRPANQFVPRLYGFKIHPMAYQLQLQAASNFKSPVKTIR

SEQ ID No:75 (Cathepsin B)

MWQLWASLCCLLVLANARSRPSFHPVSDELVNYVNKRNTTWQAGHNFYNVDMS
20 YLKRLCGTFLGGPKPPQRVMFTEDLKLPSFDAREQWPQCPTIKEIRDQGSCGSCW
AFGAVEAISDRICIHTNAHVSVEVSAEDLLTCCGSMCGDGCGNGGYPAEAWNFWTR
KGLVSGGLYESHVGCRPYSIPPCEHHVNGSRPPCTGEGDTPKCSKICEPGYSPTYK
QDKHYGYNYSVSNSEKDIMAEIYKNGPVEGAFSVYSDFLLYKSGVYQHVTGEM
MGGHAIIRILGWGVENGTPYWLVANSWNTDWGDNGFFKILRGQDHCGIESEVVAG
25 IPRTDQYWEKI

SEQ ID No:76 (Delta-6 fatty acid desaturase)

MGKGGNQGEGAAEREVSPTFSWEIQQKHNLRDRLVIDRKVYNITKWSIQHP
GGQRVIGHYAGEDATDAFRAFHPDLEFGKFLKPLLIGELAPEEPSQDHGKNSKIT
30 EDFRALRKTAEDMNLFKTNHVFLLLAHIIALESIAWFTVFYFGNGWIPTLITAFV
LATSQAQAGWLQHDYGHLSYRKPKWNHLVHKFVIGHLKGASANWWNHRHFQ
HHAKPNIFHKDPDVNMLHVFVLGEWQPIEYGKKKLKYLPIYNHQHEYFFLIGPPLI

PMYFQYQIIMTMIVHKNWVDLAWAVSYYIRFFITYIPFYGILGALLFLNFIRFLESH
WFVWVTQMNHIVMEIDQEAYRDWFSSQLTATCNVEQSFFNDWFSGHLNFQIEHH
LFPTMPRHNLHKIAPLVKSLCAKHGIEYQEKPILLRALLDIIRSLKKSGKLWLDAYL
HK

5

SEQ ID No:77 (Nogo-A)

MEDLDQSPLVSSSDSPPRPQPAFKYQFVREPEDEEEEEEEEEDEDDEDLEELEVLER
KPAAGLSAAPVPTAPAAGAPLMDFGNDVPPAPRGPLPAAPPVAPERQPSWDPS
VSSTVPAPSPLSAAA VSPSKLPEDDEPPARPPPPPASVSPQAEPVWTTPAPAPAAPP
10 STPAAPKRRGSSGSVDETLFALPAASEP VIRSSAENMDLKEQPGNTISAGQEDFPSV
LLETAASLPSLSPLSAASFKEHEYLGNLSTVLPTEGTLQENVSEASKEVSEKAKTLL
IDRDLTEFSELEYSEMGSFSVSPKAESA VIVANPREEITVKNKDEEKLVSNNILHN
QQELPTALTKLVKEDDEVVSSEKAKDSFNEKRVAVEAPMREYYADFKPFERVWEV
KDSKEDSDMLAAGGKIESNLESKVDKKCFADSLEQTNHEKDSESSNDDTSFPSTPE
15 GIKDRSGAYITCAPNPAATESIATNIFPLLDPTSENKTDEKKIEEKKAQIVTEKNT
STKTSNPFLVAAQDSETDYVTTDNLTKVTEEVVANMPEGLTPDLVQEACESELNE
VTGTKIA YETKMDLVQTSEVMQESLYPAAQLCPSFEESEATPSPVLPDIVMEAPLN
SAVPSAGASVIQPSSS PLEASSVNYESIKHEPENPPPYEEAMS VSLKKVSGIKEEIKE
PENINAALQETEAPYISIACDLIKETKLSAEPAPDFSDYSEMAKVEQPVPDHSELVE
20 DSSPDSEPVDLFSDDSIPDVPQKQDETVMLVKESLTETSFESMIEYENKEKLSALPP
EGGKPYLESFKLSLDNTKDTLLPDEVSTLSKKEKIPLQMEELSTA VYSNDDLFISKE
AQIRETETFSDSSPIEIIDFPTLISSKTD FS KLSKAREYTDLEVSHKSEIANAPDGAGSL
PCTELPHDLSLKNI QPKVEEKISFSDDFSKNGSATSKVLLPPDVSALATQAEIESIV
KPKVLVKEAEKKLPSDTEKEDRSPSAIFSAELSKTSVVDLLYWRDIKKTGVVFGAS
25 LFLLLSSLTVFSIVSVTA YIALALLSVTISFRIYKGVIQAIQKSDEGHPFRAYLESEVAI
SEELVQKYSNSALGHVNCTIKELRRFLVDDLVDLSKFAVLMWVFTYVGALFNGL
TLLILALISLFSVPVIYERHQAQIDHYLGLANKNVKDAMAKIQAKIPGLKRKAE

SEQ ID No:78 (PDGFRB)

30 MRLPGAMPALALKGELLLLSLLLLLEPQISQGLVVTPPGPELVLNVSSTFVLTCGS
APVVWERMSQEPPQEMAKAQDGTSSVLTNTGLDTGEYFCTHNDSRGLETDE
RKRLYIFVPDPTVGFLPNDAEELFIFLT EITEITIPCRVTDPQLVVTLHEKKGDVALP

VPYDHQRGFSGIFEDRSYICKTTIGDREVSDAYYVYRLQVSSINVSVNAVQTVVR
QGENITLMCIVIGNEVNVNF EWTYPRKESGRLVEPVTDFLLDMPYHRSILHPSAEL
DSGTYTCNVTESVNDHQDEKAINITVVESGYVRLLGEVTLQFAELHRSRTLQVV
FEAYPPPVTWFKDNRTLGDSSAGEIALSTRNVSETRYVSELTLVRVKVAEAGHYT
5 MRAFHEDAEVQLSFQLQINVPPRVLELSESHPDSGEQTVRCRGRGMPQPNIIWSAC
RDLKRCPRELPPTLLGNSSEEESQLETNTYWEEEQEFEVNSTRLQHVDRPLSVR
CTLRNAVGQDTQEIVVPHSLPFKVVVISAILALVVLTIISLIIHLIMLWQKKPRYEIR
WKVIESVSSDGHEYIYVDPMQLPYDSTWELPRDQLVLGRTLGGSGAFGQVVEATAH
GLSHSQATMKVAVKMLKSTARSS EKQALMSELKIMSHLGPFLNVNLLGACTKG
10 GPIYIITEYCRYGDLVDYLHRNKHTFLQHHSDKRRPPSAELYSNALPVGLPLPSHVS
LTGESDGGYMDMSKDESVDYVPMMDMKGDVKYADIESSNYMAPYDNYVPSAPE
RTCRATLINESPVLSYMDLVGF SYQVANGMEFLASKNCVHRDLAARNVLICEGKL
VKICDFGLARDIMRDSNYISKGSTFLPLKWMAPESIFNSLYTTLSDVWSFGILLWEI
FTLGGTPYPELPMNEQFYNAIKRGYRMAQPAHASDEIYEIMQKCWEEKFEIRPPFS
15 QLVLLERLLGEGYKKKYQQVDEEFLRSDHPAILRSQARLPGFHGLRSPLDTSSVL
YTAVQPNEGNDYIIPLPDPKPEVADEGPLEGSPSLASSTLNEVNTSSTISCDSPLEP
QDEPEPEPQLELQVEPEPELEQLPDSGCPAPRAEAEDSFL

SEQ ID No:79 (ENSG00000144840)

20 MASLDRVVKVLVLDGSVGKSSLVHLLCQNQVLGNPSWTGCSVDRVHDYKEG
TPEEKTCYIELWDVGGSVGSASSVKSTRAVFYNVNGIIFVHDLTNKKSSQNLRRW
SLEALNRDLVPTGVLVTNGDYDQEKFADNQIPLLVIGTKLDQIHETKRHEVLT
FLAEDFNPEEINLDCTNPRYLAAGSSNAVKLSRFFDKVIEKRYFLREGNQIPGFPDR
KRGAGTLKSLHYD

25

SEQ ID No:80 (PTK7)

MGAARGSPARPRLPLLSVLLPLGGTQTAIVFIKQPSSQDALQGRRALLRCEVE
APGPVHVYWLLDGAPVQDTERRFAQGSSLSFAAVDPLQDSGTQCVARDDVTGE
EARSANASFNKWEAGPVVLKHPASEAEIQPQTQVKLRCHIDGHPRPTYQWFRDG
30 TPLSDGQSNHTVSSKERNLTLRAGPEHSGLYSCCAHSAFSQACSSQNFTLSIAD
FARVVLAPQDVVVAR YEEAMFHCQFSAQPPPSLQWLFEDETPTINRSRPPHLRRAT
VFANGSLLTQVRPRNAGIYRCIGQGQRGPPIIIATLHLAEIEDMPLFEPRVFTAGS

EERVTCLPPKGLPEPSVWWEHAGVRLPTHGRVYQKGHELVLANIAESDAGVYTC
HAANLAGQRRQDVNITVATVPSWLKKPQDSQLEEGKPGYLDCLTQATPKPTVVW
YRNQMLISEDSRFEVFKNGLRINSVEVYDGTWYRCMSSTPAGSIEAQAVLQVLE
KLKFTPPPQPQQCMGFDKEATVPCSATGREKPTIKWERADGSSLPEWVTDNAGTL
5 HFARVTRDDAGNYTCIASNGPQGQIRAHVQLTVAVFITFKVEPERTTVYQGHTAL
LQCEAQGDPKPLIQWKKGKDRILDPTKLGPRMHIFQNGSLVIHDVAPEDSGRYTCIA
GNSCNIKHTEAPLYVVDKPVPEESEGPGSPPPYKMIQTIGLSVGAAVAYIIAVLGLM
FYCKKRCKAKRLQKQPEGEPEMECLNGGPLQNGQPSAEIQEEVALTSLGSGPAA
TNKRHSTSNDKMHFPRSSLQPIITLGKSEFGEVFLAKAQGLEEGVAETLVLVKSLSQS
10 KDEQQQLDFRRELEMGKLNHANVVRLGLCRAEAPHYMLEYVDLEDLKQFLR
ISKSKEKLKSQPLSTKQKVALCTQVALGMEHLSNNRFVHKDLAARNCLVSAQR
QVKVSALGLSKDVYNSEYYHFRQAWVALRWMSPPEAILEGDFSTKSDVWASGVL
MWEVFTHGEMPHGGQADDEVLADLQAGKARLPQPEGCPSKLYYRLMQRCWALSP
KDRPSFSEIASALGDSTVDSKP

15

SEQ ID No:81 (FLJ13977)

MRRRLTRRLVLPVFGVLWITVLLFFWVTKRKLEVPTGPEVQTPKPSDADWDDLWD
QFDERRYLNAKKWRVGDDPYKLYAFNQRESERISSNRAIPDTRHLSVLRNRTPTHLI
REIILVDDFSNDPDDCKQLIKLPVKCLRNNERQGLVRSRIRGADIAQGTTLTFLDS
20 HCEVNRDWLQPLLHRVKEDYTRVVCVIDIINLDFTYIESASELRGGFDWSLHFQ
WEQLSPEQKARRLDPTEPIRTPIIAGGLFVIDKAWFODYLGKYDMMDMDIWGGENFEI
SFRVVMCGGSLEIVPCSRVGHVFRKKHPYVFPDGNANTYIKNTKRTAEVWMDEY
KRYYYAARPFALERPFGNVESRLDLRKNLRCQSFKWYLENIYPELSIPKESSIQKGN
IRQRQKCLESQANGTTGSSGQRPAGGTSEIWVQKPRVRNRRHAAPQGFDPGAKPS
25 QHWRRPEHPAAE

SEQ ID No:82 (FLJ20481)

MFFSMGFIVAVKGKIASPLEAPVFVAAPHSTFFDGIACVVAGLPSMVSRNENAQVP
LIGRLLRAVQPVLVSRVDPDSRKNTINEIIKRTTSGGEWPQILVFPEGTCTNRSCLIT
30 FKPGAFIPGVVQPVLLRYPNKLDTVTWTWQGYTFIQLCMLTFCQLFTKVEVEFM
PVQVPNDEEKNDPVLFANKVRNLMAEALGIPVTDHTYEDCRLMISAGQLTPMEA
GLVEFTKISRKLKLDWDGVRKHLDEYASIASSSKGGRIGIEEFAKYLKLPVSDVLR

QLFALFDRNHDGSIDFREYVIGLAVLCNPSNTEELIQVAFKLFVDDEDGYITEEFST
ILQASLGVPDLDVSGLFKEIAQGDSISYEKFSAALKHPEYAKIFTTYLDLQTCHVFS
LPKEVQTIPSTASNKVSPEKHEESTSDKKDD

5 SEQ ID No:83 (SERPINA1)

MPSSVSWGILLLAGLCCLVPVSLAEDPQGDAAQKTDTSHHQDHPTFNKTPNLA
EFAFSLYRQLAHQSNSTNIFSPVSIATAFAMLGLTKADTHDEILEGLNFNLTEIPE
AQIHEGFQELLRTLNQPDSQLQLTGNGLFLSEGLKLVDKFLEDVKKLYHSEAFTV
NFGDTEEAKKQINDYVEKGTQGKIVDLVKELDRDTVFALVNYIFFKGKWERPFEV
10 KDTTEEDFHVDQVTTVKVPMMKRLGMFNIQHCKKLSSWVLLMKYLGNAATAIFFL
PDEGKLQHLENELTHDIITKFLENERRSASLHLPKLSITGTYDLKSVLGQLGITKV
FSNGADLSGVTEEAPLKLASKAVHKAFLTIDEKGTEAAGAMFLEAIPMSIPPEVKFN
KPFVFLMIEQNTKSPLFMGKVVNPTQK

15 SEQ ID No:84 (FLJ22390)

MRPRRPHQIADLFRPKDQIAYSDTSPFLILSEASLADLNSRLEKKVKATNFRPNIVIS
GCDVYAEDESWDELLIGDVELKRVMACSRCILTVDPDTGVMSRKEPLETLKSYRQ
CDPSERKLYGKSPLFGQYFVLENPGTIKVGDPVYLLGQ

20 SEQ ID No:85 (SIM TO Y71H10A. 2.P.)

MVSIPEYYEGKNVLLTGTGFLGKVLLKEKLLRSCPKVNSVYVLVRQKAGQTPQER
VEEVLSGKLFDRRLRDENPDFREKIIAINSELTQPKLALSEEDKEVIIDSTNIFHCAAT
VRFNENLRDAVQLNVIATRQLILLAQQMKNLEVFMHVSTA YAYCNRKHIDEVYY
PPPVDPKKLIDSLEWMDDGLVNDITPKLIGDRPNTYIYTAKALAEYVVQQEAKLN
25 VAIVRPSIVGASWKEPFFPGWIDNFNGPSGLFIAAGKGILRTIRASNNALADLVPVDV
VVNMSLAAWYSGVNRPRNIMVYNCTGSTNPFWGEVEYHVISTFKRNPLEQA
FRRPNVNLTSHNLLYHYWIAVSHKAPAFLYDIYLRMTGRSPRCPSFKFNSNSLSHH
YRKGVSHRVSALLLDCTHVDRSETATFNIDVRQLHWAEYIENYCLGTTKLYVLNEE
MSGSPAARKHLNKTLFSLFHTALCHGKLTVDFTGFPCLLASGGPLLSVSLHFSA
30 YVYSQIHLAFILRDLGSHSAPSLASLAGPRELTVGSLLDREWRQIKTDDFELGKSAG
EVDLEGADIEGCLLATSPA VRQQALLQRGVQWYISIPTTQETVAMEMQI

SEQ ID No:86 (Hypothetical protein tyrosine phosphatase ensg00000149185)

MAATALLEAGLARVLFYPTLLYTLFRGKVPGRAHRDWYHRIDPTVLLGALPLRSL
TRQLVQDENVRGVITMNEEYETRFLCNSSQEWKRLGVEQLRLSTVDMTGIPTLDN
LQKGVQFALKYQSLGQCVYVHCKAGRSRSATMVAAYLIQVHKWSPEEAVRIAK

5 IRSYIHIRPGQLDVLKEFHQKQITARATKDGTFVISKT

SEQ ID No:87 (ICAM-2)

MSSFGYRTLTVALFTLICCPGSDEKVFEVHVRPKKLAYPEKGSLEVNCSTTCNQPE
VGGLETSLNKILLDEQAQWKHYLVSNISHDTVLQCHFTCSGKQESMNSNVSYQP
10 PRQVILTLQPTLVAVGKSFTIECRVPTVEPLDSLTLFLFRGNETLHYETFGKAAPAP
QEATATFNSTADREDGHRNFSCLAVIDLMSRGGNIFHKHSAPKMLEIYEPVSDSQ
MVIIVTVSVVSVLLSLFVTSVLLCIFGQHLRQQRMGTYGVRAAWRRLPQAFRP

SEQ ID No:88 (KIAA1181)

15 ASGEWRVSGGRPAGAGRPEEALAAGSDPRGAAARLACSAPTPGGGTMPFDFFRF
DIYRKVPKDLTQPTYTGAIISICCLFILFLSELTGFITTEVVNELYVDDPDKDSGG
KIDVSLNISLPNLHCELVGLDIQDEMGRHEVGHIDNSMKIPLNNNGAGCRFEGQFSIN
KVPGNFHVSTHSATAQPQNPDMTHVIHKLSFGDTLQVQNIHGAFNALGGADRLTS
NPLASHDYILKIVPTVYEDKSGKQRYSYQYTVANKEYVAYSHTGRIIPAIWFRYDL
20 SPITVKYTERRQPLYRFTTICAIIGGTFTVAGILDSCIFTASEAWKKIQLGKMH

SEQ ID No:89 (KIAA1533)

NSKKMQSWYSMLSPTYKQRNEDFRKLFSKLPEAERLIVDYSICALQREILLQGRLY
LSENWICFYSNIFRWETTISIQLKEVTCLKKEKTAKLIPNAIQICTESEKHFITSFGAR
25 DRCFLLIFRLWQNALLEKTLSPRELWHLVHQCYGSELGLTSEDEDYVSPLQLNGL
GTPKEVGDVIALSDITSSGAADRSQEPSPVGSRRGHVTPNLSRASSDADHGAEDK
EEQVDSQPDASSSQTVTPVAEPPSTEPTQPDGPTTLGPLDLLPSEELLTDTSNSSST
GEEADLAALLPDLSGRLLINSVFHVGAEERLQQMLFSDSPFLQGFLQQCKFTDVTLS
PWSGDSKCHQRRVLTYTIPISNPLGPKSASVVEQTFLFRRGPQAGGCVVDSEVLTQ
30 GIPYQDYFYTAHRYCILGLARNKARLRSSEIRYRKQPWSLVKSLIEKNSWSGIED
YFHHLERELAKAEKLSLEEGGKDARGLLSGLRRRKPLSWRAHGDGPQHPDPDPC
ARAGIHTSGSLSSRFSEPSVDQGPGAGIPSALVLISIVSLIILANVLLFYRLWSLERT

AHTFESWHSLALAKGKFPQTATEWAELALQKQFHSVEVHKWRQILRASVELLDE
MKFSLEKLHQGITVSDPPFDTQPRPDDSFS

SEQ ID No:90 (kinectin 1 (kinesin receptor))

5 MEFYESAYFIVLIPSIVITVIFLFFWLFMKGKETLYDEVLAQKREQKLIPTKTDKKKAE
KKKNKKKEIQNGNLHESDSESVPRDFKLSDALAVERDDQVAPVPLNVETSSVRE
RKKKEKKQKPVLEEQVIKESDASKIPGKKVEPVVPVTQPTPPSEAAASKKPGQK
KSKNGSDDQDKKVEVLMVPSKRQEALPLHQETKQESGSGKKASSKKQKTENVFV
DEPLIHATTYIPLMDNADSSPVVDKREVIDLLKPDQVEGIQKSGTKKLKTETDKEN
10 AEVKFKDFLLSLKTMMFSEDEALCVVDLLKEKSGVIQDALKKSSKGELTTLIHQLQ
EKDKLLAAVKEDAAATKDRCKQLTQEMMTEKERSNVVMTRMKDRIGTLEKEHN
VFQNKIHSVSYQETQQMQMKFQQVREQMEAEIAHLKQENGILRDAVSNTTNQLES
KQSAELNKLQRQDYARLVNELTEKTGKLQQEEVQKKNAEQQAATQLKVQLQEAERR
WEEVQSYIRKRTAEHEAAQQDLQSKFVAKENEVQSLHSKLTDTLVSQQLEQRL
15 MQLMESEQKRVNKEESLQMVGQDILEQNEALKAQIQQFHSQIAAQTASVLAEL
HKVIAEKDKQIKQTEDSLASERDRLTSKEEELKDIQNMNFLKAEVQKLQALANE
QAAAHELEKMQQSYYVKDDKIRLLEEQLQHEISNKMEEFKILNDQNKALKSEVQ
KLQTLVSEQPNKDVVEQMEKCIQEKEKLKTVEELLETGLIQVATKEEELNARTE
NSSLTKEVQDLKAKQNDQVASFASLVEEELKKVIEKDGGKIKSVEELLEAELLKVAN
20 KEKTVQDLKQEIKALKEEIGNVQLEKAQQLSITSKVQELQNLKGKEEQMNTMKA
VLEEKEKDLANTGKWLQDLQEENESLKAHVQEVAQHNLKEASSASQFEELEIVLK
EKGNELKRLEAMLKERESDLSSKTQLLQDVQDENKLFKSQIEQLKQQNYQQASSF
PPHEELLKVISEREKEISGLWNELDSLKDVEHQRKKNNDLREKNWEAMEALAST
EKMLQDKVNKTSKERQQVVEALEAKEVLKKLFPKVSVPSNLSYGEWLHGFEK
25 KAKECMAGTSGSEEVKVLHKLEADEMHTLLQLECEKYKSVLAETEGILQKLQ
RSVEQEENKWVKVVDENHKTQKMQSSFTSSEQELERLRSNKDIENLRREREHLE
MELEKAEMERSTYVTEVRELKDLLTELQKKLDDSYSEA VRQNEELNLLKAQLNET
LTKLRTEQNERQKVAGDLHKAQQSLELIQSKIVKAAGDTTVIENSDVSPETESSEK
ETMSVSLNQTVTQLQQLQAVNQQLTKEKEHYQVLE

30

SEQ ID No:91 (Mesenchymal stem cell protein DSCD75)

MLGLLVALLALGLAVFALLDVWYLVRLPCAVLRARLLQPRVRDLLAEQRFPGRV
LPSDLDLLLHMNNARYLREADFARVAHLTRCGVLGALRELRAHTVLAASCARHR
RSLRLLEPFEVRTRLLGWDDRAFYLEARFVSLRDGFVCALLRFRQHLLGTSPERVV
QHLCQRRVEPPELPADLQHWISYNEASSQLRMESGLSDVTKDQ

5

SEQ ID No:92 (Neurotrypsin)

MTLARFVLALMLGALPEVVGFDSVLNDSLHHSHRHSPPAGPHYPYLYPTQQRPT
TRPPPPLPRFPRPPRALPAQRPHALQAGHTPRPHWGCPAGEPWVSVTDFGAPCLR
WAEVPPFLERSPPASWAQLRGQRHNCRSPDGAGRWCFCYGDARGKVDWGYCD

10 CRHGSVRLRGKNEFEGTVEVYASGVWGTVCSSHWDSDASVICHQLQLGGKGI
AKQTFFSGLGLIPIYWSNVRCRGDEENILLCEKDIWQGGVCPQKMAAVTCSFSH
GPTFPIIRLAGGSSVHEGRVELYHAGQWGTVCDDQWDDADAEVICRQLGLSGIAK
AWHQAYFGEKGSGPVMLEVRCTGNELSIEQCPKSSWGEHNCGHKEDAGVSCPL
TDGVIRLAGGKGSHEGRLEVYYRGQWGTVCDDGWTELNTYVVCRQLGFKYGKQ

15 ASANHFEESTGPIWLDDVSCSGKETRFLQCSRRQWGRHDCSHREDVSIACYPGE
GHRLSLGFPVRLMDGENKKEGRVEVFINGQWGTICDDGWTDKDAAVICRQLGYK
GPARARTMAYFGEKGKPIHVVDNVKCTGNERSLADCIKQDIGHNCRHSEDAGVIC
DYFGKKASGNSNKESLSSVCGLLLHRRQKRIIGGKNSLRGGWPWQVSLRLKSSH
GDGRLLCGATLLSSCWVLTAAHCFKRYGNSTRSYAVRVGDYHTLVPEEFEEEIGV

20 QQIVIHYREYRPDRSDYDIALVRLQGPEEQCARFSSHVLPACLPLWRERPQKTASNC
YITGWGDTGRAYSRTLQQAAIPLPKRFCEERYKGRFTGRMLCAGNLHEHKRVDS
CQGDSGGPLMCERPGESVVYGVTSWGYGCCVKDSPGVYTKVSAFVPWIKSVT
KL

25 SEQ ID No:93 (PP1, regulatory subunit 15B)

MEPGTGGSRKRLGPRAGFRFWPPFFPRRSQAGSSKFPTPLGPENSGNPTLLSSAQPE
TRVSYWTKLLSQLAPLPGLLQKVLIWSQLFGGMFPTRWLDFAGVYSALRALKGR
EKPAAPTAQKSLSSLQLDSSDPSVTSPLDWLEEGIHWQYSPPDLKLELKAKGSALD
PAAQAFLLEQQLWGVELLPSSLQSRILYSNRELGSSPSGPLNIQRIDDFSVVSYLLNP

30 SYLDCFPRLEVSYQNSDGNSEVVGQTLPESSCLREDHCHPQPLSAELIPASWQG
CPPLSTEGLPEIHHLRMKRLEFLQQASKGQDLPTDQDNGYHSLEEEHSSLRMDPK
HCRDNPTQFVPAAGDIPGNTQESTEKKIELLTTEVPLAEEESPSEGCPSEIPMEKE

5 PGEGRISVVDYSYLEGDLPIARPACSNKLIDYILGGASSDLETSSDPEGEDWDEEA
EDDGFDSDSSLSDSLEQDPEGLHLWNSFCSDPYNPQNFTATIQTAAIRVPEEPSD
SEKDLGKSDLENSSQSGSLPETPEHSSGEEDDWESSADEAESLKLWNSFCNSDDP
YNPLNFKAPFQTSGENEKGCRDSKTPSESIVAISECHTLLSCKVQLLGSQESECPDS
VQRDVLSGGRHTHVKRKKVTFLEEVTEYYISGDEDRKGPWEFARDGCRFQKRIQ
ETEDAIGYCLTFEHRERMFNRLQGTCFKGLNVLKQC

SEQ ID No:94 (Protein amplified in osteosarcoma (OS-9))

10 MAAETLLSSLLGLLLGLLLPASLTGGVGSLNLEELSEMRYGIEILPLPVMMGGQSQS
SDVVIVSSKYKQRYECLPAGAIHFQREREETPAYQGPGIPELLSPMRDAPCLLKT
KDWWTYEFCYGRHIQQYHMEDSEIKGEVLYLGYYQSAFDWDDETAKASKQHRL
KRYHSQTYGNNGSKCDLNRPRAEVRFCLDEGAGISGDYIDRVDEPLSCSYVLTIR
TPRLCPHPLLRRPPPSAAPQAILCHPSLQPEEYMAVQRQADSKQYGDKIEELQDLG
PQVWSETKSGVAPQKMA GASPTKDDSKDSDFWKMLNEPEDQAPGGEVPAEEQ
15 DPSPEAADSASGAPNDFQNNVQVKVIRSPADLIRFIEELKGGTKKGKPNIGQEQPV
DDAAEVQPQEPEKERGDPERQREMEEEDEDEDEDEDEDERQLLGEFEKELEGILL
PSDRDRRLRSEVKAGMERELENIIQETEKELDPDGLKCESERDRAMALTSTLNKLI
KRLEEKQSPELVKKHKKKR VVPKKPPPSPQPTeedPEHRVRVRVTKLRLGGPNQD
20 LTVLEMKRENPLKQIEGLVKELLEREGLTAAGKIEIKIVRPWAEGTEEGARWLTD
EDTRNLKEIFFNILVPGAEAAQKERQRQKELESNYRRVWGSPGEGTGDLDEFDF

SEQ ID No:95 (Protein similar to stromal cell-derived factor 2)

25 MAVVPLLLLGGLWSAVGASSLGVTGCGSVVKLLNTRHNVRHLHS HDVRYGSGSGQ
QSVTGVTSVDDNSYWIRGKSATVCERGTPIKCGQPIRLTHVNTGRNLHSHHFTS
PLSGNQEVSAGEEGEGDYLDDWT VLCNGPYWVRDGEVRFKHSSTEVLLSVTGE
QYGRPISGQKEVHGMAQPSQNNYWKAMEGIFMKPSELLKAEAHHAEL

SEQ ID No:96 (Protocadherin beta 8)

30 MEASGKLICRQRQVLFSLLLGLSLAGAAEPRSYSVVEETEGSSFTNLAKDLGLE
QREFSRRGVRVVSRGNKLHLQLNQETADLLLNEKLDREDLCGHTEPCVLRFQVLL
ESPFEFFQAEQVIDINDHSPVFLDKQMLVKVSESSPPGTAFPLKNAEDLDIGQNNI
ENYIISPNSYFRVLTRKRSDGRKYPELVLDNALDREEEAERLTALDGGSPRSRG

TAQVYIEVV DVNDNAPEFQQPFYRVQISEDSPISFLVVKVSATDVDTGVNGEISYSL
 FQASDEISKTFKVDFLTGEIRLKKQLDFEKFQS YEVNIEARDAGGFSGKCTVLIQVI
 DVNDHAPEVTMSAFTSPIPENAPETVVALFSVSDLDSGENGKISCSIQEDLPFLLKSS
 VGNFYTLLTETPLDRESRAEYNVTITVTDLGTPLTTHLNMTVLVSDVNDNAPAFT
 5 QT SYTLFVRENNSPALHIGSVSATDRDSGTNAQVTYSLLPPQDPHLPLASLVSINTD
 NGHLFALRSLDYEALQAFEFRVGASDRGSPALSSEALVRVLVLDANDNSPFVLYPL
 QNGSAPCTELVPR AAEPGYLVTKVVAVDGDSGQNAWLSYQLLKATEPGLFGVW
 AHNGEVRTARLLSERDAAKQRLVVLVKDNGEPPCSATATLHLLLVDGFSQPYLPL
 PEAAPAQGQADSLTVYLVVALASVSSLFLFSVLLFVAVLLCRRSRAASVGRCVPE
 10 GPFPGHLVDVRGTGSLSQNYQYEVCLAGGSGTNEFQFLKPVL PNIQGHSGFPEME
 QNSNFRNGFGFSQLQK

SEQ ID No:97 (REP8 protein)

MASRGVVVGIFFLSAVPLVCLELRRGIPDIGIKDFLLCGRILLLALLTLIISVTTSWL
 15 NSFKSPQVYLKEEEEKNEKRQKLVRKKQQEAQGEKASRYIENVLKPHQEMKLRK
 LEERFYQMTGEAWKLSSGHKLGGDEGTSQTSFETSNREA AKSQNLPKPLTEFPSPA
 EQPTCKEIPDLPEEPSQTAEEVVTVALRCPSGNVLRRRFLKSYSSQVLFDWMTRIG
 YHISLYSLSTSFP RRPLAVEGGQSLEDIGITVDTVLILEEKEQTN

20 SEQ ID No:98 (RING finger protein 5)

MAAAEEDGGPEGPNRERGGAGATFECNICLETAREA VVSVCGLYCWPC LHQW
 LETRPERQECPVCKAGISREKV VPLYGRGSQKPQDPRLKTPPRPQGQR PAPESRGG
 FQPF GDTGGFHFSFGVGAFPGFFTTVFNAHEPFR RTGVDLGQGH PASSWQDSL
 LFLAIFFFF WLLSI

25

SEQ ID No:99 (Retinal short-chain dehydrogenase/reductase retSDR2)

MKFLLDILLLPLLI VCSLESFVKLFIPKRRKSVTGEIVLITGAGHGIGRLTA YEF AKL
 KSKLVLWDINKHGLEETA AKCKGLGAKVHTFVVDCSNREDIYSSAKVKAEIGD
 VSILVNNAGVVYTSDFATQDPQIEKTFEVNVL AHFWTTKAFLPAMTKNNHG HIV
 30 TVASAAGHVSVPFLAYCSSKFAAVGFHKT LTDELAALQITGVKTTCLCPNFVNT
 GFIKNPSTSLGPTLEPEEVNRLMHGILTEQKMIFIPSSIAFLTTLERILPERFLA VLK
 RKISVKFDAVIGYKMKAQ

SEQ ID No:100 (Stromal cell-derived factor 2-like 1)

5 MWSAGRGGAAWPVLLGLLLALLVPGGAAKTGAELVTCGSVLKLLNTHHRVRL
HSHDIKYGSGSGQQSVTGVEASDDANSYWRIRGGSEGGCPCGSPVRCGQAVRLTH
VLTGKNLHTHHFSPSLSNNQEVSAGGEDGEGLDDLDLWTVRCSGQHWEREAAVRL
QHVGTSVFLSVTGEQYGSPIRGQHEVHGMPSANTHNTWKAMEGIFIKPSVEPSAG
HDEL

SEQ ID No:101 (Thioredoxin domain-containing protein)

10 GRWASGEMAPSGSLAVPLAVLVLLWGAPWTHGRRSNVRVITDENWRELLEGD
WMIEFYAPWCPACQNLQPEWESFAEWGEDLEVNIAKVDVTEQPGLSGRFITALPT
IYHCKDGEFRRYQGPRTKKDFINFISDKEWKSIEPVSSWFGPGSVMSSMSALFQLS
MWIRTCHNYFIEDLGLPVWGSYTVFALATLFSGLLLGLCMIFVADCLCPSKRRRPQ
PYPYPSKKLLSESAQPLKKVEEEQEADEEDVSEEEAESKEGTNKDFPQNAIRQRSL
15 GPSLATDKS

SEQ ID No:102 (Voltage-dependent anion channel 1)

20 AVPPTYADLGKSARDVFTKGYGFGLIKLDLTKSENGLEFTSSGSANTETTKVTGS
LETKYRWTEYGLTFTEKWNTDNTLGTEITVEDQLARGLKLTFDSSFSPNTGKKNA
KIKTGYKREHINLGCDMDFDIAGPSIRGALVLGYEGWLAGYQMNFETAKSRVTQS
NFAVGYKTDEFQLHTNVNDGTEFGGSIYQKVKKLETAVNLAWTAGNSNTRFGI
AAKYQIDPDACFSAKVNNSSLIGLGYTQTLKPGIKLTLSSLGDKNVNAGGHKLG
LGLEFQA

25 SEQID No:103 (ATP-binding cassette, sub-family A member 3)

MAVLRQLALLWKNYTLQKRKVLTVLELFPLLLFPGILIWLRLKIQSENVPNATI
YPGQSIQELPLFFTFFPPPGDTWELAYIPSHSDAAKTVTETVRRALVINMRVRGFPSE
KDFEDYIRYDNCSSSVLAAVVFEPFNHSKEPLPLAVKYHLRFSYTRRNYMWTQT
GSFFLKETEGWHTTSLFPLFPNPGPRELTSPDGGEPGYIREGFLAVQHAVDRAIME
30 YHADAATRQLFQRLTVTIKRFPYPPFIADPFLVAIQYQLPLLLLSSFTYTALTIARAV
VQEKEERRLKEYMRMMGLSSWLHWSAWFLLFFLFLIAASFMTLLFCVKVKPNVA
VLSRSDPSLVLAFLLCFAISTISFSFMVSTFFSKANMAAAFGGFLYFFTYIPYFFVAP

RYNWMTLSQKLCSCLLSNVAMAMGAQLIGFEAKGMGIQWRDLLSPVNDDDF
CFGQVLGMLLLDSVLYGLVTWYMEA VFPQFGVPQPWYFFIMPSYWCGKPRAV
AGKEEEDSDPEKALRNEYFEAEPEDLVAGIKIKHLSKVFRVGNKDRAAVRDLNLN
LYEGQITVLLGHNGAGKTTLSMLTGLFPPTSGRAYISGYEISQDMVQIRKSLGLCP
5 QHDILFDNLTVAEHLYFYAQLKGLSRQKCPEEVQMLHIIQLEDKWNSRSRFLSG
GMRRKLSIGIALIAGSKVLILDEPTSGMDAISRRAIWDLLQRQKSDRTIVLTTHFMD
EADLLGDRIAIMAKGELQCCGSSLFLKQKYGAGYHMTLVKEPHCNPEDISQLVHH
HVPNATLESSAGAELS FILPRESTHRFEGLFAKLEKKQKELGIASFGASITTMEEVFL
RVGKLVDSSMDIQAIQLPALQYQHERRASDWAVDSNLCGAMDPSDGIGALIEER
10 TAVKLNTGLALHCQQFWAMFLKAAAYS WREWKMVA AQVLVPLTCVTLALLAIN
YSSELFDDPMLRLTLGEYGRTVVPFSVPGTSQLGQQLSEHLKDALQAEGQEPR
LGDLEELIFRASVEGGGFNERCLVAASFRDV GERTVVNALFNNQAYHSPATALA
VVDNLLFKLLCGPHASIVVSNFPQPRSA LQAAK DQFNEGRKGFDIALNLLFAMAFL
ASTFSILA VSERAVQAKHVQFVSGVHVASF WLSALLWDLISFLIPSLLLLVVFKAFD
15 VRAFTRDGHMADT LLLLLLYGWAIPLMYLMNFFF LGAATAYTRLTIFNLSGIATF
LMVTIMRIPA V KLEELSKTLDHVFLVLPN HCLGMAVSSFYENYETRRYCTSSEVA
AHYCKKYNIQYQENFYAWSAPGVGRFVASMAASGCAYLILLFLIETNLLQRLRGIL
CALRRRTLT ELYTRMPVLPEDQDVADERTRILAPSPDSLLHTPLI KELSKVYEQR
VPLLAVDRLSLA VQKGECFG LLFNGAGKTTFKMLTGEESLTSGDAFVG GHR
20 DVGKVRQRIGYCPQFDALLDHMTGREMLV MYARLRGIPERHIGACVENTLRGLLL
EPHANKLVRTYSGGNKRKLSTGIALIGEPAVIFLDEPSTGMDPVARLLWDTVARA
RESGKAIITSHS MEECEALCTRLAIMVQGQFKCLGSPQHLKSKFGSGYSLRAKVQS
EGQQEALEEFKAFVDLTFPGSVLEDEHQGMVHYHLPGRDLSWAKVFGILEKAKE
KYGVDDYSVSQISLEQVFLSFAHLQPPTAEEGR
25

SEQID No:104 (CAMK4)

MLKVTVPSCSASSCSSVTASAAPGTASLVPDYWIDGSNRDALSDFFEVESELGRGA
TSIVYRCKQKGTQKPYALKVLKKTVDKKIVRTEIGVLLRLSHPNIIKLKEIFETPTEI
SLVLELVGGELFDRIVEKGYYSERDAADA V KQILEAVAYLHENGIVHRDLK PEN
30 LLYATPAPDAPLKIADFG LSKIVEHQVLMKTVCGTPGYCAPEILRGCAYGPEVDM
WSVGIITYILLCGFEPFYDERGDQFMFRRLNCEYYFISPWWDEVSLNAKDLVRKLI
VLDPKKRLTTFQALQHPWVTGKAANFVHMDTAQKKLQEFNARRKLKAAVKA VV

ASSRLGSASSSHGSIQESHKASRDPSPIQDGNEDMKAYPEGEKIQGDGAQAAVKGA
QAELEMKVQALEKVKGADINAAEAPKMPKAVEDGJKVADLELEEGLAEEKLKT
EEAAAPREGQGSSAVGFEVPQQDVILPEY

5 SEQ ID No:105 (KIAA0363)
EPCALTPGPSHLALTFLPSKPGARPQPEGASWDAGPGGAPSAWADPGEGGPSPML
LPEGLSSQALSTEAPLPATLEPRIVMGEETCQALLSPRAARTALRDQEGGHASPDPP
PELCSQGDLSVPSPPPDPDSFFTTPSTPTKTYALLPACGPHGDARDSEALRDELL
DSPPASPSGSYITADGDSWASSPSCSLLLAPAEGLDFPSGWGLSPQGSMVDEREL
10 HPGATPEPPSSESSLADSSSSWGQEGHFFDLDFLANDPMIPAALLPFQGSIFQVE
AVEVTPLSPEEEEEAVADPDPGGDLAGEGEEDSTSASFQLQSLSDLSITEGMDEAFA
FRDDTSAAASSDSDSASYAEADDERLYSGEPAQATLLQDSVQKTEEESGGAKGL
QAQDGTWSWAVEAAPQTSDRGAYLSQRQELISEVTEEGLALGQESTATVTPHTLQ
VAPGLQVEVATRVTQPAGEEETDSTAGQESAAMAMPQPSQEGISEILGQESVTAE
15 KLPTPQEETSLTCPDSPQNLKEEGGLDLPSPGRKPVAAATIVPRQAKEDLTLQPQDSA
MTPPLPLQDTDLSSAPKPVAAATIVSQQAEEGLTPQDSVMTPPLPLQDTTELSSAPK
PVAAATLVSQQAEEGLTPQDSAMTPPLPLQDTDLSSAPKPVAAATLVSQQAEEG
LTLPQDSAMTPPLPLQDTDLSSAPKPVAAATLVSQQAEEGLTPQDSAMTPPLPLQ
DTDLSSAPKPVAAATIVSQQAEEGLTPQDSAMTPPLPLQDTDLSSAPKPVAAATI
20 VSQQAEEGLTPQDSAMTPPLPLQDTDLSSAPKPVAAATPVSQQAEEGLTPQDSA
MTPPLPLQDTDLSSAPKPVAAATPVSQQAEEGLTPQDSAMTAPLPLQDTGPTSGP
EPLAVATPQTLQAEAGCAPGTEPVATMAQQEVGEALGPRPAPEEKNAALPTVPEP
AALDQVQQDDPQPAAEAGTPWAAQEDADSTLGMEALSLPEPASGAGEEIAEALSR
PGREACLEARAHTGDGAKPDSPQKETLEVENQQEGGLKLLAQEHGPRSALGGAR
25 EVPDAPPAACPEVSQARLLSPAREERGLSGKSTPETLPSAVATEASLDSCPESSEVG
AVSSLDRGCPDAPAPTSAPTSQQPEPVILGLGSVEQPHEVPSVLGTPLLQPENLAK
GQPSTPVDRPLGPDPSSAPGTLAGAALPPLPEPPAPCLCQDPQEDSVEDEEPPGSLGLP
PPQAGVQPAAAAVSGTTQPLGTGPRVSLSPHSPLLSPKVASMDAKDLALQILPPCQ
VPPPSGPQSPAGPQGLSAPEQQEDEDSLEEDSPRALGSGQHSDSHGESSAELDEQDI
30 LAPQTVQCPAQAPAGGSEETIAKAKQSRSEKKARKAMSKLGLRQIQGVTRITIQQKS
KNILFVIAKPDVFKSPASDTYVVFGEAKIEDLSQQVHKAEEAKFKVPSEPSALVPES

APRPRVRLECKEEEEEEEVDEAGLELRDIELVMAQANVSRAKAVRALRDNHSD
IVNAIMELTM

SEQID No:106 (DCTN1)

5 MMRQAPTARKTTRRPKPTRPASTGVAGASSSLGPSGSASAGELSSSEPSTPAQTP
LAAPPIPTPVLTSPGAVPPLPSPSKEEEGLRAQVRDLEEKLETLRLKRAEDKAKLKE
LEKHKIQLEQVQEWKSQKMQEQQADLQRRLKEARKEAKEALEAKER YMEEMADT
ADAIEMATLDKEMAEERAESLQQVEALKER VDELTTDLEILKAEIEKGSDGAAS
SYQLKQLEEQNARLKDALVRMRDLSSSEKQEHVKLQKLMEKKNQELEVVRQQRE
10 RLQEELSQAESTIDELKEQVDAALGAEEMVEMLTDRNLNLEEKVRELRETVGDLE
AMNEMINDELQENARETELELREQLDMAGARVREAQKRVEAAQETVADYQQTIK
KYRQLTAHLQDVNRELTNQQEASVERQQQPPPETFDFKIKFAETKAHAKAIEMEL
RQMEVAQANRHMSLLTAFMPDSFLRPGGDHDCVLVLLMPRLICKAELIRKQAQ
EKFELSENCSERPGLRGAAGEQLSFAAGLVYSLSLQATLHRYEHALSQCSVVDVY
15 KKVGSLYPPEMSAHERSLDFLIELLHKDQLDETVNVEPLTKAIKYYQHLYSIHLAEQ
PEDCTMQLADHIKFTQSALDCMSVEVGLRAFLQGGQEATDIALLRDLETSCSDI
RQFCKKIRRRMPGTDAPGIPAALAFGPQVSDTLLDCRKHLTWVVAVLQEVAAAA
AQLIAPLAENEGLLVAALEELAFKASEQIYGTPSSSPYECLRQSCNLISTMNKLAT
AMQEGEYDAERPPSKPPPVELRAAALRAEITDAEGLGLKLEDRETVIKELKKSLKI
20 KGEELSEANVRLSLLEKKLDAAKDADERIEKVQTRLEETQALLRKKEKEFEETM
DALQADIDQLEAEKAELKQRLNSQSKRTIEGLRGPPPSGIATL VSGIAGEEQQRGAI
PGQAPGSVPGPGLVKDSPLLLQQISAMRLHISQLQHENSILKGAQMKAASLASLPP
HVAKLSHEGPSELPGAGALYRKTSQLLETLNQLSTHTHVVDIRTSPAAKSPSAQL
MEQVAQLKSLSDTVEKLKDEVLKETVSQRPGATVPTDFATFPSSAFLRAKEEQQD
25 DTVYMGKVTFSAGFGQRHRLVLTQEQLHQLHSRLIS

SEQ ID No:107 (KIAA1250)

QLSVKMSVLISQSVINYVEEENIPALKALLEKCKDVDERNECGQTPLMIAAEQGN
LEIVKELIKNGANCNLEDLDNWTALISASKEGHVHIVEELLKCGVNLEHRDMGGW
30 TALMWACYKGRTDVVELLSSHGANPSVTGLYSVYPIWAAGRGHADIVHLLQN
GAKVNCSDKYGTTPLVWAARKGHLECVKHLLAMGADVDQEGANSMTALIVAV
KGGYTQSVKEILKRNPNVNLTDKDGNTALMIASKEGHTEIVQDLLDAGTYVNIPD

RSGDTVLIGAVRGGHVEIVRALLQKYADIDIRGQDNKTALYWA
VEKGNATMVRD
ILQCNPDTEICTKDGTEPLIKATKMRNIEVVELLLDKGAKVSA
VDKKGDTPLHIAIR
GRSRKLAELLRNPKDGRLLYRPNKAGETPYNIDCSHQKSILTQIFGARHLSPTETD
GDMGYDLYSSALADILSEPTMQPPICVGLYA
QWGSFKLKKLEDEMKTFA
5 QIEPLFQFSWLI
VFLTLLCGGLLFAFTVHPNLGIA
VSLSFLALLYIFFIVIYFGGR
REGESWNWA
VWLSTRLARHIGYLE
LELLKLMFVNPELPE
QTTKALPVRLFTDYN
RLSSVGGETSLA
EMIATLSDACEREFGFLA
TRLFRVFKTEDTQGKKK
WKKTCCLPS
FVI
FLFIGCI
SGITLLA
IFRVDPK
HLT
VNA
VLISIAS
VVGLAF
VLC
RTWWQ
VLD
LNSQRKRLHNA
ASKLH
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SEGFM
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QNL
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HDY
MRN
IVH
LPV
FLN
SRG
LNS
ARK
FLV
TSAT
NGD
VPC
SDT
GIQ
EDAD
RRV
SQNS
LGE
MTK
LGS
KTAL
NRR
DTY
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QRT
ITR
QMS
FDL
TKL
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FSD
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25 SEQID No:108 (FACL3)

30 MNNHVSSKPSTMKLKHTINPILLYFIHFLISLYTILTYIPFYFFSES
RQEKS
NRIKAKP
VNSKPD
SAYRSVNSLDGLASVLYPGCDTLDKVFTYAKNK
FKNK
RLLGT
REVL
NEE
DEVQ
PNGK
IFKK
VILGQ
YNW
LSYED
VF
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ETR

AEWMIAAQACFMNFQLVTLYATLGGPAIVHALNETEVNITSKELLQTKLKDIV
SLVPRLRHITVDGKPPTWSDFPKGIVHTMAAVEALGAKASMENQPHSKPLPSDIA
VIMYTSGSTGLPKGVMISHSNILAGITGMAERIPELGEEDVYIGYLPLAHVLELSAEL
VCLSHGCRIGYSSPQLADQSSKIKKGSKGDTSMLKPTLMAAVPEIMDRIYKNVM
5 NKVSEMSSFQRNLFILA NYKMEQISKGRNTPLCDSFVFRKVRSLGGNIRLLCG
GAPLSATTQRFMNICFCCPGQGYGLTESAGAGTISEVWDYNTGRVGAPLVCEI
KLKNWEEGGYFNTDKPHPRGEIILIGGQSVMGYYKNEAKTKADFSEDENGQRWL
CTGDIGEFEPDGCLKIIDRKDLVKLQAGEYVSLGKVEAALKNLPLVDNICAYANS
YHSYVIGFVVPNQKELTELARKKGLKTWEELNSCEMENEVLKVLSEAAISASL
10 EKFEIPVKIRLSPEPWTPETGLVTDAFKLKRKELKTHYQADIERMYGRK

SEQID No:109 (FACL4)

MKLKLNVLTIILPVHLLITIYSALIFIPWYFLTNACKKNAMEAKRIKAKPTSDKPGSP
YRSVTHFDSLAVIDIPGADTLKLFDAVSKFGKKDSLGTREILSEENEMQPNGKV
15 FKKLILGNYKWMNYLEVNRRVNNFGSGLTALGLKPKNTIAIFCETRAEWMIAQT
CFKYNFPLVTLYATLGKEAVVHGLNESEASYLITSVELLESKLKTALLDISCVKHII
YVDNKAINKAEYPEGFEIHSMQSVEELGSNPENLGIPPSRPTPSDMAIVMYTSGSTG
RPKGVMMHHSNLIAGMTGQCERIPGLGPKDTYIGYLPLAHVLELTAEISCFTYGCR
IGYSSPLTLSQSSKIKKGSKGKDCTVLKPTLMAAVPEIMDRIYKNVMSKVQEMNYI
20 QKTLFKIGYDYKLEQIKKGYDAPLCNLLFKVKALLGGNVRMMMLSGGAPLSPQT
HRFMNVCFCCPIGQGYGLTESCGAGTVTEVTDYTTGRVGAPLICCEIKLKDQWQEG
GYTINDKPNRGEIVIGGQNISMGYFKNEEKTAEDYSVDENGQRWFCTGDIGEFHP
DGCLQIIDRKDLVKLQAGEYVSLGKVEAALKNCPLIDNICAFAKSDQSYVISFVV
PNQKRLTLLAQKGVEGTWVDICNNPAMEAEILKEIREAANAMKLERFEIPIKVRL
25 SPEPWTPETGLVTDAFKLKRKELRNHYLKDIERMYGGK

SEQID No:110 (KIAA0095)

MDTEGFGEELLQQAEQLAAETEGISELPHVERNLQEIQQAGERLRSRTLRTSQETA
DVKASVLLGSRGQLDISHISQRLESLSAATTFEPLEPVKDTDIQGFLKNEKDNALLSAI
30 EESRKRTFGMAEEYHRESMLVEWEQVKQRILHTLLASGEDALDFTQESEPSYISDV
GPPGRSSLNDNIEMAYARQIYTYNEKIVNGHLQPNLVDLCASVAELDDKSISDMWT
MVKQMTDVLLTPATDALKNRSSVEVRMEFVRQALAYLEQSYKNYTLTVFGNL

HQAQLGGVPGTYQLVRSFLNIKLPAPLPGLQDGEGEVEGHPVWALIYYCMRCGDLA
ASQVVNRAQHQLGEFKTWFQEYMMNSKDRRLSPATENKRLHYRRALRNNTDPY
KRAVYCIIGRCDVTDNQSEVADKTEDYLWLKLNQVCFDDGTSSPQDRLTLSQFQ
KQLLEDYGESHFTVNQQPFLYFQVLFLTAQFEAAVAFLFRMERLRCHA VHVALVL
5 FELKLLLKSSGQSAQLL SHEPGDPPCLRRLNFRLLMLYTRKFESTDPREALQYFY
FLRDEKDSQGENMFLRCVSELVIESREFDMILGKLENDGSRKPGVIDKFTSDTKPII
NKVASVAENKGLFEEAAKLYDLAKNADKVLELMNKLLSPVVPQISAPQSNKERL
KNMALSIAERYRAQGISANKFVDSTFYLLLDLITFFDEYHSGHIDRAFDIIERLKLVP
LNQESVEERVAAFRNFSDERHNLSEVLLATMNILFTQFKRLKGTSPPSSSRPQRVIE
10 DRDSQLRSQARTLITFAGMIPYRTSGDTNARLVQMEVLMN

SEQID No:111 (KIAA0922)

MLLVLECVLFSAQGYFRMDSSATQFHIETHENTSGLWSIYRNHFDRSVVLNDV
FLSKETKHMLKILNFTGPLFLPPGCWNIFSLKLAVKDIAINLFTNVFLTTNIGAIFAIP
15 LQIYSAPTKEGSLGFEVIAHGMHYFMGKSAGNPNWNGSLSLDQSTWNVDSEL
ANKLYERWKKYKNGDVCKRNVLGTRFAHLKKSKESESFVFFLPRLIAEPGLMLN
FSATALRSRMKYFVVQNPSSWPVSLQLLPLSLYPKPEALVHLLHRWFGTDMQMI
NFTTGEFQLTEACPYLGTHSEESRGILHLHQPLEMKRVRGVVFTPADYGKVTSLIL
IRNNLTVIDMIGVEFGARELLKVGGRPGAGGSLRFKVPESTLMDCRRQLKDSK
20 QILSITKNFKVENIGPLPITVSSLKINGYNCQGYGFEVLDCHQFSLDPNTSRDISIVFT
PDFTSSWVIRDLISLVTAAADLEFRFTLNVTLPHHLLPLCADVVPGPSWEESFWRLTV
FFVSLSLLGVILIAFQQAQYILMEFMKTRQRQNASSSSQQNNGPMDVISPHSYKSN
CKNFLDTYGPSDKGRGKNCLPVNTPQSRIQNAKRSPATYGHSQKKHKCSVYYS
KHKTSTAAASSTSTTEEKQTPLGSSLPAAKEDICTDAMRENWISLRYASGINVNL
25 QKNLTLPKNLLNKEENTLKNTIVFSNPSSECSMKEGIQTCMFPKETDIKTSNTAEF
KERELCPLKTSKKLPENHLPRNSPQYHQPDLPFPEISRKNNNGNNQQVPVKNEVDHCE
NLKKVDTKPSSEKKIHKTSREDMFSEKQDIPFVEQEDPYRKKLQEKGREGNLQNL
NWSKSRTCRKNKKRGVAPVSRPPEQSDLKLVCSDFERSELSSDINVRSWCIQESTR
EVCKADAEIASSLPAAQREAEGYYQKPEKKCVDKFCSDSSDCGSSSGVRASRGS
30 WGSWSSTSSSDGDKKPMVDAQHFLPAGDSVSQNDFPSEAPISLNLSHNICNPMTV
NSLPQYAEPSCLPAGPTGVEEDKGLYSPGDLWPTPPVCVTSSLNCTLENGVPCVI
QESAPVHNSFIDWSATCEGQFSSAYCPELNDYNAFPEENMNYANGFPCPADVQT

DFIDHNSQSTWNTPPNMPAAWGHASFISSPPYLTSTRSLSPMSGIWFQSDV
YENCCPINPTTEHSTHMENQAVVCKEYYPGFNPFRAYMNLDIWTITANRNANFPL
SRDSSYCGNV

5 SEQ ID No:112 (PAS domain containing serine/threonine kinase)
MEDGGGLTAFEEDQRCLSQLPLPVSAEGPAAQTTAEPSRSFSSAHRHLSRRNGLSR
LCQSRTALSEDWRSSYCLSSLAAQNICTSKLHCPAAPEHTDPSEPRGSVSCCSLLRG
LSSGWSSPLLPAPVCNPNAIFTVDAKTTEILVANDKACGLLGYSSQDLIGQKLTQ
FFLRSDSDVVEALSEEHMEADGHAAVVFGTVVDIISRSGEKIPVSVWMKRMQRER

10 RLCCVVVLEPVERVSTWVAFQSDGTVTSCDSLFAHLHGYVSGEDVAGQHITDLIPS
VQLPPSGQHIPKNLKIQRSGRARDGTTPLSLKLKSQPSSEEATTGEAAPVSGYRA
SVWVFCTISGLITLLPDGTIHGINHSFALTLEFGYGKTELLGKNITFLIPGFYSYMDLA
YNSSLQLPDLASCLDVGNESGCGERTLDPWQGQDPAEGGQDPRINVLAGGHVV
PRDEIRKLMESQDIFTGTQTELIAGGQLLSPQAPGVNVPEGSLPVHGEQALP

15 KDQQITALGREEPVAIESPGQDLLGESRSEPVDPVKPFASCEDSEAPVPAEDGGSDA
GMCGLCQKAQLERMGVSGPSGSDLWAGAAVAKPQAKGQLAGGSLLMHCPCYGS
EWGLWWRSQDLAPSPSGMAGLSFGTPLDEPWLGVENDREELQTCLIKEQLSQLS
LAGALDVPHAEVPTECQAVTAPVSSCDLGGGRDLCGGCTGSSSACYALATDLPGG
LEAVEAQEVDVNSFSWNLKELFFSDQTDQTSSNCSCATSELRETPSSLAVGSDPDV

20 GSLQEQQSCVLDRELLLTGTCVDLGQGRRFRESCVGHDPTEPLEVCLVSSEHY
AASDRESPGHVPSTLDAGPEDTCPSAEEPRLNQVTSTPVIVMRGAAGLQREIPEG
AYSGSCHHRDGLRLSIQFEVRRVELQGPTPLFCCWLVKDLLHSQRDSAARTRLFLA
SLPGSTHSTAAELTGPSLVEVLRARPWFEEPPKAVELEGLAACEGEYSQKYSTMSP
LGSGAFGFWTAVDKEKNKEVVVKFIKKEKVLEDCWIEDPKLGKVTLIEIALSRV

25 EHANIIVLDIFENQGFFQLVMEKHGSGLDLFAFIDRHPRLDEPLASYIFRQLVSAV
GYLRLKDIIHRDIKDENTIVIAEDFTIKLIDFGSAAYLERGKLFYTFCGTIEYCAPEVL
MGNPYRGPELEMWSLGVTLYTLVFEENPFCELEETVEAAIHPPYLVSKELMSLVSG
LLQPVPERRTLEKLVTDPWVTQPVNLADYTWEEVCRVNKPESGVLSAASLEMG
NRSLSDVAQAQELCGGPVPGEAPNGQGCLHPGDPRLLTS

30 SEQID No:114 (homolog of yeast golgi membrane protein yif1p (yip1p-interacting factor))
HPAGLAAAAAGTPRLPSKRRIPVSQPGMADPHQLFDDTSSAQSRGYGAQRAPGGL

SYPAASPTPHAAFLADPVSNMAMA YGSSLAAQGKELVDKNIDRFIPITKLKYYFA
VDTMYVGRKLGLLFFPYLHQDWEVQYQQDTPVAPRFDVNAPDLYIPAMAFITYV
LVAGLALGTQDRFSPDLLGLQASSALAWLTLEVLAILLSLYLVTVNTDLTTIDLVA
FLGYKYVGMIGGVLGMLFGKIGYYLVLGWCVAIFVFMIRTLRLKILADAAAEG
5 VPVRGARNQLRMLTMAVAAAQPMLMYWLTFLVR

SEQ ID No:114 (Integral membrane transporter protein)

MVNYAWAGRSQRKLWWRSAVLTCKSVVRPGYRGGLQARRSTLLKTCARARA
TAPGAMKMWAPWTRFYNSCCLCCHVRTGTILLGVWYLIINAVVLLILLSALADP
10 DQYNFSSSELGGDFEFMDDANMCIAIAISLLMILICAMATYGAYKQRAAWIIPFFC
YQIFDFALNMLVAITVLIYPNSIQEYIRQLPPNFPYRDDVMSVNPTCLVLIILLFISIIL
TFKGYLISCVWNCYRYINGRNSSDVLVYVTSNDTTVLLPPYDDATVNGAAKEPPP
PYVSA

15 SEQID No:115 (GPR49)

MDTSRLGVLLSLPVLLQLATGGSSPRSGVLLRGCPTHCHCEPDGRMLLRVDCSDL
GLSELPNSNLSVFTSYLDLSMNNISQLLPNPLPSLRFLEELRLAGNALTYIPKGAFTGL
YSLKVMLQNNQLRHVPTEALQNLRSLSQLRLDANHISYVPPSCFSGLHSRLHLW
LDDNALTEIPVQAFRSLSALQAMTLALNKIHIPDYAFGNLSSLVVLHLHNNRIHSL
20 GKKCFDGLHSLETLDNYNNLDEFPTAIRTLSNLKELGFHSNNIRSIPEKAFVGNPS
LITIHFYDNPIQFVGRSAFQHLPELRTLNGASQITEFPDLTGTANLESLTGTGAQIS
SLPQTVCNQLPNLQVLDLSYNLLEDLPSFSVCQKLQKIDLRLHNEIYEIKVDTFQQLL
SLRSLNLAWNKIAIIHPNAFSTLPSLIKLDLSSNLLSSFPITGLHGLTHLKTGNHAL
QSLISSENFPELKVIEMPTYAYQCCAFGVCENA YKISNQWNKGDNSSMDDLHKKDA
25 GMFQAQDERDLEDFLLDFEEDLKALHSVQCSPSPGPFPKCEHLLDGWLIRIGVWTI
AVLALTCNALVTSTVFRSPLYISPIKLLIGVIAAVNMLTGVSSAVLAGVDAFTFGSF
ARHGAWWENGVGCHVIGFLSIFASESSVFLLTLAALERGFSVKYSAKFETKAPFSS
LKVIILLCALLALTMAAVPLLGGSKYGA SPLCLPLFGE PSTMGYMVALILLNSLCF
LMMTIA YTKLYCNLDKG DLENIWDCSMVKHIA LLFTNCILNCPVAFLSFSSLINLT
30 FISPEVIKFILLVVVPLPACLNPLLYILFNPHFKEDLVSLRKQTYVWTRSKHPSLMSI
NSDDVEKQSCDSTQALVTFTSSSITYDLPPSSVPSPA YPVTESCHLSSVAFVPCL

SEQ ID No:116 (NAP-1 related protein/NAP-1-like protein)

KEQSELDQDLDDVEEVEEEETGEETKLKARQLTVQMMQNPQILAALQERLDGLV
ETPTGYIESLPRVVKRRVNALKNLQVKCAQIEAKFYEEVHDLERKYAVLYQPLFD
KRFEIINAIYEPTEEECEWPDEEDEISEELKEKAKIEDEKKDEEKEDPKGIPEFWLT
5 VFKNVDLLSDMVQEHDPEILKHLKDIKVFKSDAGQPMSFVLEFHFEPEYFTNEVL
TKTYRMRSEPDSDPFSFDGPEIMGCTGCQIDWKKGKNVTLKTIKKKQKHKGRGT
VRTVTKTVSNDNSFFAPPEVIPKFSAFDDDAEAILAADFEIGHFLRERIIPRSVLYF
TGEAIEDDDDDYDEEGEEADEGYQLFEEVKSCSKLFQRWLQ

10 SEQID No:117 (SPTLC2)

MRPEPGGCCRRTVRANGCVANGEVRNGYVRSSAAAAAAAAAGQIHHVTQNGG
LYKRPFNEAFEEETPMLVAVLTYVGYGVTLFGYLRDFLRYWRIEKCHHATEREEQ
KDFVSLYQDFENFYTRNLYMRIRDNWNRPICSPGARVDIMERQSHDYNWSFKY
TGNIIKGVINMGSYNYLGFARNTGSCQEAAAKVLEEYGAGVCSTRQEIGNLDKHE
15 ELEELVARFLGVAAAMA YGMGFATNSMNIPALVGKGCLILSDELNHASLVLGARL
SGATIRIFKHNNMQSLEKLLKDAIVYGQPRTRPWKKILILVEGIYSMEGSIVRLPE
VIALKKKYKAYLYLDEAHSIGALGPTGRGVVEYFGLDPEDVDVMMGTFTKSFGA
SGGYIGGKKELIDYLRTSHSAVYATSLSPPVVEQIITSMKCIMGQDGTSLGKECV
QQLAENTRYFRRRLKEMGFITYGNEDSPVPLMLYMPAKIGAFGREMLKRNIGVV
20 VVGFATPPIIESRARFCLSAAHTEILDALKIEIDEVGDLLQLKYSRHRLVPLLDRPF
DETTYEETED

SEQID No:118 (Delta-like homolog)

MTATEALLRVLLLLLAFGHSTYGAECFPACNPQNGFCEDDNVCRCQPGWQGPLC
25 DQCVTSPGCLHGLCCEPGQCICTDGWDGELCDRDVRACSSAPCANNGTCVSLDG
GLYECSCAPGYSRKDCQKKDGPCVINGSPCQHGGTCVDDEGRASHASCLCPPGFS
GNFCEIVANSCTPNPCENDGVCTDIGDFRCRCPAGFIDKTCSPVTCASSPCQN
GGTCLQHTQVSYECLCKPEFTGLTCVKKRALSPQQVTRLPSGYGLAYRLTPGVHE
LPVQQPEHRILKVSMEKLNKKTPLLTEGQAICFTILGVLTSLVVLGTVGIVFLNKCE
30 TWVSNLRYNHMLRKKKNLLQYNSGEDLAVNIIIFPEKIDMTTSKEAGDEEI

SEQ ID No: 119 (25 kDa microsomal signal peptidase subunit)

MAAAA VQGGRSGSGGCGSGAGGASNCGTGSGRSGLDKWKIDDKPVKIDKWGDG
SAVKNSLDDSAKKVLLEKYKYVENFGLIDGRLTICTISCFFAIVALIWDYMHPPFES
KPVLA CVISYFVMMGILTIYTSYKEKSIFLVAHRKDPTGMDPDDIWQLSSSLKRF
DDKYTLKLTFISGRTKQQREAFTKSIAKFFDHSGTLVMDAYEPEISRLHDSLAIER

5 KIK

SEQ ID No: 120 (APP-C99)

MDAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIATVIVITLVMLKK
KQYTSIHGVVEVDAAVTPEERHLSKMQQNGYENPTYKFFEQMQN

10

SEQ ID No: 121 (Psen-2)

MLTFMASDSEEEVCDERTSLMSAESPTPRSCQEGRQGPEDGENTAQWRSQENEED
GEEDPDRYVCSGVPGRRPGLEEELTLKYGAKHVIMLFVPTLCMIVVVATIKSVRF
YTEKNGQLIYTPFTEDTPSVGQRLLNSVLNTLIMISVIVVMTIFLVVLYKYRCYKFI
15 HGWLIMSSLMLLFLFTYIYLGEVLKTYNVAMDYPTLLLTVWNFGAVGMVCIHWK
GPLVLQQAYLIMISALMALVFIKYLPEWSAWVILGAISVYDLVAVLCPKGPLRML
VETAQERNEPIFPALIYSSAMVWTVGMAKLDPSSQGALQLPYDPEMEEDSYDSFG
EPSYPEVFEPP LTGYPGEELEEEEERGVKLGLGDFIFYSVLVGKAAATGSGDWNTT
LACFVAILIGLCLL LAVFKKALPALPISITFGLIFYFSTDNLVRPFMDTLASHQL

20 YI

SEQ ID No: 122 (FADS1)

MGTRAARPAG LPCGAENPAR RRLALGARQQ IHSWSPRTPS TRLTAPAGPA
RGVARPAMAP DPVAAETAAC GPTPRYFTWD EVAQRSGCEE RWLVIDRKVY
25 NISEFRRHP GGSRVISHYA GQDATDPFVA FHINKGLVKK YMNSLLIGEL
SPEQPSLEPT KNKELTDEFR ELRATVERMG LMKANHVFFL LYLLHILLLE
GAAWLTLWVF GTSFLPFLLC AVLLSAVQAQ AGWLQHDFGH LSVFSTSKWN
HLLHHFVIGH LKGAPASWWS HMHFQHHAKP NCFRKDPDIN MHPFFFALGK
30 ILSVELGKQK KKYM PYNHQH KYFFLIGPPA LLPLYFQWYI FYFVIQRKKW
VDLAWMITFY VRFFLTIVPL LGLKAFLGLF FIVRFLESNW FVWVTQMNHI
PMHIDHDRNM DWVSTSQLQAT CNVHKSAFND WFGH LNFQI EHHLFPTMP
HNYHKVAPLV QSLCAKHGIE YQSKPLLSAF ADIIHSLKES GQLWL DAYLH Q

SEQ ID No: 123 (DEGS)

MGSRVSREDF EWVYTDQPHA DRRREILAKY PEIKSLMKPD PNLIWIIIMM
VLTQLGAFYI VKDLDWKWVI FGAYAFGSCI NHSMTLAIHE IAHNAAFGNC
5 KAMWNRWFGM FANLPIGIPY SISFKRYHMD HHRYLGADGV DWDIPTDFEG
WFFCTAFRKF IWVILQPLFY AFRPLFINPK PITYLEVINT VAQVTFDILI
YYFLGIKSLV YMLAASLLGL GLHPISGHFI AEHYMFLKGH ETYSYYGPLN
LLTFNVGYHN EHHDFPNIPG KSLPLVRKIA AEYYDNLPHY NSWIKVLYDF
VMDDTISPYS RMKRHQKGEM VLE

10

SEQ ID No: 124 (SCD4/ HYPOTHETICAL PROTEIN FLJ21032)

MPGPATDAGK IPFCDAKEEI RAGLESSEGG GGPERPGARG QRQNTVWRNV
VLMSSLHLGA VYSLVLIPKA KPLTLLWAYF CLLLAALGVT AGAHLRLWSHR
SYRAKLPLRI FLAVANSMAF QNDIFERSRD HRAHHKYSET DADPHNARRG
15 FFFSHIGWLF VRKHRDVIEK GRKLDVTDLL ADPVVRIQRN TQHIQKEGRA
LNQEAAACEML REWHQGHILK VTLPGHLILA LLHTHCNHSE KCCLMLRALS
VSLEVF

SEQ ID No: 125 (FADS3)

20 MGGVGEPGPR EGPAQPGAPL PTFCWEQIRA HDQPGDKWLV IERRVYDISR
WAQRHPGGSR LIGHHGAEDA TDAFRAFHQD LNFVRKFLQP LLIGELAPEE
PSQDGPLNAQ LVEDFRALHQ AAEDMKLFDA SPTFFAFLLG HILAMEVLA
LLIYLLPGW VPSALAAFIL AISQAQSWCL QHDLGHASIF KKSWWNHVAQ
KFVMGQLKGF SAHWWNFRHF QHHAKPNIFH KDPDVTVAPV FLLGESSVEY
25 GKKKRRYLPY NQQHLYFFLI GPPLTLVNF EVENLAYMLV CMQWADLLWA
ASFYARFFLS YLPFYGVPGV LLFFVAVRVL ESHWFVWITQ MNHIPKEIGH
EKHRDWVSSQ LAATCNVEPS LFTNWFSGHL NFQIEHHLFQ RMPRHNYSRV
APLVKSLCAK HGLSYEVKPF LTALVDIVRS LKKSGDIWLD AYLHQ

30